TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 SYSTEM COVERAGE 1
1.2 SIX-STEP TROUBLESHOOTING PROCEDURE 1
1.3 FUSES AND LIGHT BULBS 1

2.0 IDENTIFICATION OF SYSTEM 1

3.0 SYSTEM DESCRIPTION AND FUNCTIONAL OPERATION 1

3.1 AIRBAG SYSTEM 2
3.1.1 DRIVER AIRBAG 3
3.1.2 CLOCKSPRING 4
3.1.3 PASSENGER AIRBAG 4
3.1.4 SEAT BELT TENSIONER (SBT) 5
3.1.5 SIDE IMPACT SENSORS 5
3.1.6 CURTAIN AIRBAGS 6
3.1.7 SPECIAL TOOLS 6
3.1.8 DIAGNOSTIC TROUBLE CODES 7
3.1.9 ACTIVE CODES 7
3.1.10 STORED CODES 7
3.2 AUDIO SYSTEM 7
3.2.1 REMOTE RADIO CONTROLS 8
3.3 BODY CONTROL MODULE 8
3.4 CHIME SYSTEM 10
3.5 COMPASS/MINI-TRIP COMPUTER 10
3.6 DOOR AJAR SYSTEM 12
3.7 ELECTRICALLY HEATED SYSTEMS 12
3.7.1 HEATED SEAT RELAY 12
3.7.2 REAR WINDOW DEFOGGER 12
3.8 EXTERIOR LIGHTING SYSTEM 12
3.8.1 HEADLAMP DELAY 12
3.9 HEATING AND A/C SYSTEM 13
3.9.1 SYSTEM AVAILABILITY 13
3.9.2 SYSTEM CONTROLS 13
3.9.2.1 MANUAL TEMPERATURE CONTROL (MTC) 13
3.9.2.2 AUTOMATIC TEMPERATURE CONTROL (ATC) 13
3.9.3 SYSTEM REVISIONS (ATC & MTC) 13
3.9.4 SYSTEM DIAGNOSTICS (ATC & MTC) 14
3.9.5 FOLLOWING A REPAIR (ATC & MTC) 14
3.10 INTERIOR LIGHTING 14
3.10.1 COURTESY LAMP CONTROL 14
3.10.2 ILLUMINATED ENTRY 14
3.11 MECHANICAL INSTRUMENT CLUSTER 14
3.12 POWER DOOR LOCK SYSTEM 15
3.13 POWER CONVERTIBLE TOP 15
3.13.1 TOP CONTROL 15
3.13.2 WINDOW DROP RELAY ASSEMBLY 15
3.14 VEHICLE COMMUNICATION 15
3.14.1 BUS FAILURE MESSAGE 17
3.15 VEHICLE THEFT SECURITY SYSTEM 17
3.16 WIPER SYSTEM 18
3.16.1 SYSTEM FEATURES 18

3.17 USING THE DRBIII® 18
3.18 DRBIII® ERROR MESSAGES 18
3.19 DRBIII® DOES NOT POWER UP (BLANK SCREEN) 18
3.20 DISPLAY IS NOT VISIBLE 18

4.0 DISCLAIMERS, SAFETY, WARNINGS 19

4.1 DISCLAIMERS 19
4.2 SAFETY 19
4.2.1 TECHNICIAN SAFETY INFORMATION 19
4.2.2 VEHICLE PREPARATION FOR TESTING 19
4.2.3 SERVICING SUB ASSEMBLIES 19
4.2.4 DRBIII® SAFETY INFORMATION 19
4.3 WARNINGS 20
4.3.1 VEHICLE DAMAGE WARNINGS 20
4.3.2 ROAD TEST COMPLAINT VEHICLE 20

5.0 REQUIRED TOOLS AND EQUIPMENT 20

6.0 GLOSSARY OF TERMS 20

6.1 ACRONYMS 20

7.0 DIAGNOSTIC INFORMATION AND PROCEDURES 23

AIRBAG
ACCELEROMETER 1 24
INTERNAL 1 24
INTERNAL 2 24
INTERNAL 3 24
INTERNAL 4 24
OUTPUT DRIVER 1 24
OUTPUT DRIVER 2 24
STORED ENERGY FIRING 1 24
AIRBAG WARNING INDICATOR DRIVER 26
AIRBAG WARNING INDICATOR OPEN 26
AIRBAG WARNING INDICATOR SHORT 26
CALIBRATION MISMATCH 29
CLUSTER MESSAGE MISMATCH 31
DRIVER CURTAIN SQUIB CIRCUIT OPEN 33
DRIVER CURTAIN SQUIB CIRCUIT SHORT 36
DRIVER CURTAIN SQUIB SHORT TO BATTERY 39
DRIVER CURTAIN SQUIB SHORT TO GROUND 41
DRIVER SEAT BELT TENSIONER CIRCUIT OPEN 44
DRIVER SEAT BELT TENSIONER CIRCUIT SHORT 47
DRIVER SEAT BELT TENSIONER SHORT TO BATTERY 50
DRIVER SEAT BELT TENSIONER SHORT TO GROUND 53
DRIVER SQUIB 1 CIRCUIT OPEN 56
DRIVER SQUIB 1 CIRCUIT SHORT 59
DRIVER SQUIB 1 SHORT TO BATTERY 62
DRIVER SQUIB 1 SHORT TO GROUND 65
DRIVER SQUIB 2 CIRCUIT OPEN 68
DRIVER SQUIB 2 CIRCUIT SHORT 71
DRIVER SQUIB 2 SHORT TO BATTERY 74

TABLE OF CONTENTS - Continued

DRIVER SQUIB 2 SHORT TO GROUND 77
LEFT SIDE IMPACT SENSOR 1 INTERNAL 1 80
LOSS OF IGNITION RUN - START 82
LOSS OF IGNITION RUN ONLY 86
NO CLUSTER MESSAGE 90
NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION. 92
NO ODOMETER MESSAGE 96
NO PCI TRANSMISSION 98
NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION 100
PASSENGER CURTAIN SQUIB CIRCUIT OPEN 104
PASSENGER CURTAIN SQUIB CIRCUIT SHORT. 107
PASSENGER CURTAIN SQUIB SHORT TO BATTERY 110
PASSENGER CURTAIN SQUIB SHORT TO GROUND 113
PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN 116
PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT 119
PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY 122
PASSENGER SEAT BELT TENSIONER SHORT TO GROUND 125
PASSENGER SQUIB 1 CIRCUIT OPEN 127
PASSENGER SQUIB 1 CIRCUIT SHORT. 130
PASSENGER SQUIB 1 SHORT TO BATTERY. 133
PASSENGER SQUIB 1 SHORT TO GROUND 136
PASSENGER SQUIB 2 CIRCUIT OPEN 139
PASSENGER SQUIB 2 CIRCUIT SHORT. 142
PASSENGER SQUIB 2 SHORT TO BATTERY. 145
PASSENGER SQUIB 2 SHORT TO GROUND 148
POWER SUPPLY VOLTAGE LOW. 151
RIGHT SIDE IMPACT SENSOR INTERNAL 1 154
VEHICLE BODY STYLE MISMATCH. 156
*AIRBAG INDICATOR ON WITHOUT ACTIVE TROUBLE CODES. 158

AUDIO

ALL OUTPUTS SHORT - PREMIUM AUDIO SYSTEM 159
ALL OUTPUTS SHORT- BASE AUDIO SYSTEM 161
CASSETTE PLAYER INOP 163
CD MECHANICAL FAILURE 163
*AM/FM SWITCH INOPERATIVE. 163
*ANY STATION PRESET SWITCH INOPERATIVE. 163
*BALANCE INOPERATIVE 163
*CD EJECT SWITCH INOPERATIVE. 163
*EQUALIZER INOPERATIVE 163
*FADER INOPERATIVE 163
*FF/RW SWITCH INOPERATIVE. 163
*HOUR/MINUTE SWITCHES INOPERATIVE 163
*PAUSE/PLAY SWITCH INOPERATIVE 163
*PWR SWITCH INOPERATIVE 163
*SCAN SWITCH INOPERATIVE 163
*SEEK SWITCH INOPERATIVE. 163
*SET SWITCH INOPERATIVE 163
*TAPE EJECT SWITCH INOPERATIVE. 163
*TIME SWITCH INOPERATIVE 163
*TUNE SWITCH INOPERATIVE. 163
CD CHANGER MECHANICAL FAILURE. 165
CD CHANGER READ FAILURE. 166

CD CHANGER TEMPERATURE HIGH 167
CD PLAY FAILURE 168
CD READ FAILURE 169
CD TEMPERATURE HIGH 170
LOW VOLTAGE LEVEL 171
NO ANTENNA CONNECTION 172
POWER AMP SHUTDOWN - BASE AUDIO SYSTEM 173
POWER AMP SHUTDOWN - PREMIUM AUDIO SYSTEM 175
*ONE OR BOTH REMOTE RADIO SWITCHES INOPERATIVE (IF EQUIPPED) 177

CHIME
*CHIME INOPERATIVE AT ALL TIMES 178
*CHIME INOPERATIVE WITH DRIVER SEAT BELT UNFASTENED 179
*CHIME INOPERATIVE WITH EXTERIOR LIGHTS ON AND DRIVERS DOOR OPEN 180
*CHIME INOPERATIVE WITH KEY-IN IGNITION AND DRIVER DOOR OPEN 181
*CHIME SOUNDS WITH DRIVER SEAT BELT FASTENED 183
*CHIME SOUNDS WITH DRIVERS DOOR OPEN AND KEY REMOVED FROM IGNITION 185
*VEHICLE SPEED WARNING CHIME PROBLEM 186

COMMUNICATION
ATC MESSAGES NOT RECEIVED 187
BATTERY POWER TO MODULE DISCONNECTED 188
BOOTLOADER CHECKSUM FAILURE 189
EEPROM CHECKSUM FAILURE 190
MIC MESSAGES NOT RECEIVED 191
ORC MESSAGES NOT RECEIVED 192
PCM MESSAGES NOT RECEIVED 193
POST FAILURE 195
SKIM MESSAGES NOT RECEIVED 196
TCM MESSAGES NOT RECEIVED 197
TRAVELER MESSAGES NOT RECEIVED (CMTC) 198
*NO RESPONSE FROM ACM 199
*NO RESPONSE FROM AUTOMATIC TEMPERATURE CONTROL MODULE 201
*NO RESPONSE FROM BODY CONTROL MODULE 203
*NO RESPONSE FROM CONTROLLER ANTILOCK BRAKE 204
*NO RESPONSE FROM INSTRUMENT CLUSTER 206
*NO RESPONSE FROM PCM (PCI BUS) - NGC 208
*NO RESPONSE FROM PCM (PCI BUS) - SBEC 210
*NO RESPONSE FROM PCM (PCM SCI ONLY) - NGC 212
*NO RESPONSE FROM PCM (SCI ONLY) - SBEC 215
*NO RESPONSE FROM RADIO 218
*NO RESPONSE FROM SENTRY KEY IMMOBILIZER MODULE 221
*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - EATX 223
*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - NGC 226
*NO RESPONSE FROM TRAVELER (CMTC) 229
*PCI BUS COMMUNICATION FAILURE 231

COMPASS/MINI-TRIP COMPUTER
BCM MESSAGE NOT RECEIVED 234
COMPASS FAILURE 235
INTERNAL FAILURE 236

PCM MESSAGE NOT RECEIVED 237
*AVERAGE FUEL ECONOMY INOPERATIVE OR WRONG 238
*DISTANCE TO EMPTY INOPERATIVE OR WRONG 238
*ELAPSED TIME INOPERATIVE OR WRONG 238
*TRIP ODOMETER INOPERATIVE OR WRONG 238
*COMPASS/MINI-TRIP COMPUTER INOPERATIVE 239
*OUTSIDE TEMPERATURE DISPLAY INACCURATE OR INOPERATIVE 240

DOOR AJAR
*DECKLID AJAR CIRCUIT OPEN 241
*DECKLID AJAR CIRCUIT SHORTED TO GROUND 242
*DRIVER DOOR AJAR CIRCUIT OPEN 243
*DRIVER DOOR AJAR CIRCUIT SHORTED TO GROUND 244
*LEFT REAR DOOR AJAR CIRCUIT OPEN 245
*LEFT REAR DOOR AJAR CIRCUIT SHORTED TO GROUND 246
*PASSENGER DOOR AJAR CIRCUIT OPEN 247
*PASSENGER DOOR AJAR CIRCUIT SHORTED TO GROUND 248
*RIGHT REAR DOOR AJAR CIRCUIT OPEN 249
*RIGHT REAR DOOR AJAR CIRCUIT SHORTED TO GROUND 250

ELECTRICALLY HEATED SYSTEMS
*HEATED SEAT RELAY NOT ENERGIZED WITH IGNITION ON 251
*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH AUTOMATIC TEMP CONTROL) 252
*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH MANUAL TEMP CONTROL) 255

EXTERIOR LIGHTING
*HEADLAMP DELAY RELAY INOPERATIVE 258
*HI BEAM HEADLAMPS WILL NOT TURN OFF 259
*HIGH BEAM HEADLAMPS WILL NOT TURN ON 260
*LOW BEAM HEADLAMPS WILL NO TURN OFF 262
*LOW BEAM HEADLAMPS WILL NOT TURN ON 263

HEATING & A/C
A/C BLEND DOOR INPUT SHORTED TO BATTERY - MTC 265
A/C BLEND DR INPUT OPEN/SHORT TO GROUND - MTC 266
A/C HEAD, A/C SWITCH FAILURE - MTC 269
A/C HEAD, EBL INPUT SHORTED TO BATTERY - MTC 270
A/C HEAD, EBL INPUT SHORTED TO GROUND - MTC 272
A/C HEAD, EBL SWITCH STUCK - MTC 275
A/C MODE DOOR INPUT OPEN/SHORT TO GROUND - MTC 276
A/C MODE DOOR INPUT SHORTED TO BATTERY - MTC 279
A/C SWITCH FAILURE - ATC 280
AUTO SWITCH FAILURE - ATC 280
BILEVEL SWITCH FAILURE - ATC 280
DEFROST SWITCH FAILURE - ATC 280
EBL SWITCH FAILURE - ATC 280
FLOOR SWITCH FAILURE - ATC 280
MIX SWITCH FAILURE - ATC 280
OFF SWITCH FAILURE - ATC 280
PANEL SWITCH FAILURE - ATC 280
RECIRC SWITCH FAILURE - ATC 280

TEMP DOWN FAILURE - ATC 280
TEMP UP FAILURE - ATC 280
ATC BLOWER STALL FAULT. 284
BLEND DOOR FEEDBACK FAILURE - ATC & MTC 285
BLEND DOOR STALL TEST FAILURE - ATC & MTC. 285
BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC 293
COMMON OUTPUT SHORT TO BATTERY - ATC & MTC. 293
MODE DOOR OUTPUT SHORT TO BATTERY - ATC & MTC. 293
RECIRC DOOR OUTPUT SHORT TO BATTERY - ATC & MTC 293
BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC 298
COMMON OUTPUT SHORT TO GROUND - ATC & MTC. 298
MODE DOOR OUTPUT SHORT TO GROUND - ATC & MTC. 298
RECIRC DOOR OUTPUT SHORT TO GROUND - ATC & MTC 298
DIMMING CODE RX FAILURE - ATC 303
EVAPORATOR SENSOR FAILURE - ATC & MTC 305
HEAD STATUS RX FAILURE - ATC. 309
IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE) 310
MODE DOOR FEEDBACK FAILURE - ATC & MTC 315
MODE DOOR STALL TEST FAILURE - ATC & MTC 315
RECIRCULATION DOOR STALL TEST FAILURE - ATC & MTC 323
SUN LOAD SENSOR FAILURE - ATC. 326
*A/C SYSTEM TEST - MTC 328
*ATC SYSTEM TEST 330
*ATC TEMPERATURE CONTROL INCORRECT IN SUN/SHADE. 332
*BACK LIGHTING INOPERATIVE - ATC & MTC 334
*BLOWER MOTOR INOPERATIVE - ATC 335
*BLOWER MOTOR INOPERATIVE - MTC 340
*BLOWER MOTOR SPEEDS INCORRECT - MTC. 343
*BLOWER RUNS AT ONLY ONE SPEED - ATC. 345
*VF SEGMENTS STUCK ON ONE SETTING, OR DISPLAYS --F, OR SOME
OR ALL INOPERATIVE. 347

IGNITION, POWER, ACCESSORY
*HORN INOPERATIVE 350

INSTRUMENT CLUSTER
ABS LAMP CIRCUIT OPEN 354
ABS LAMP CIRCUIT SHORT. 354
AIRBAG LAMP CIRCUIT OPEN. 354
AIRBAG LAMP CIRCUIT SHORT 354
FUEL LEVEL SENDING UNIT FAILURE 356
NO ABS BUS MESSAGES RECEIVED. 359
NO BCM BUS MESSAGES RECEIVED 359
NO ORC BUS MESSAGES RECEIVED 359
NO TCM BUS MESSAGES RECEIVED 359
PANEL DIMMING OUTPUT SHORT 361
PCM MESSAGE NOT RECEIVED. 362
*BRAKE WARNING INDICATOR ALWAYS ON 364
*BRAKE WARNING INDICATOR INOPERATIVE 365
*CHARGING SYSTEM WARNING INDICATOR NOT OPERATING PROPERLY 367
*CRUISE ENGAGED INDICATOR INOPERATIVE 368
*ENGINE COOLANT TEMPERATURE GAUGE INOPERATIVE OR INACCURATE. .369

*ENGINE COOLANT TEMPERATURE INDICATOR NOT OPERATING PROPERLY 370
*FUEL GAUGE NOT OPERATING PROPERLY 371
*HIGH BEAM INDICATOR ALWAYS ON 372
*HIGH BEAM INDICATOR INOPERATIVE. 374
*LOW FUEL WARNING INDICATOR NOT OPERATING PROPERLY 376
*MALFUNCTION INDICATOR LAMP NOT OPERATING PROPERLY 377
*OIL PRESSURE INDICATOR NOT OPERATING PROPERLY 378
*PRND OR AUTOSTICK INDICATOR INACCURATE OR INOPERATIVE. 380
*SEAT BELT INDICATOR ALWAYS ON 381
*SEAT BELT INDICATOR INOPERATIVE 382
*SPEEDOMETER NOT OPERATING PROPERLY 384
*TACHOMETER NOT OPERATING PROPERLY 386
*TRACTION CONTROL INDICATOR ALWAYS ON. 387
*TRACTION CONTROL INDICATOR INOPERATIVE 388
*VTSS INDICATOR INOPERATIVE 390

INTERIOR LIGHTING
COURTESY LAMP OUTPUT FAILURE 391
DIMMING LEVEL SWITCH INPUT FAILURE 392
*COURTESY LAMP INOPERATIVE - ALL LAMPS 394
*I/P ILLUMINATION LAMPS NOT WORKING PROPERLY 395

POWER DOOR LOCKS/RKE
DECKLID RELEASE SOLENOID OUTPUT FAILURE 397
DECKLID RELEASE SWITCH FAILURE 400
DOOR LOCK SWITCH FAILURE. 402
DRIVER DOOR CENTRAL LOCK (ARM)/UNLOCK (DISARM) SWITCH FAILURE . .404
RKE FOB BATTERY LOW 406
RKE PROGRAM MODE ENTERED WITHOUT PROGRAM REQUEST 407
RKE UNABLE TO ENTER PROGRAM MODE 408
*ALL DOORS EXCEPT DRIVER FAILING TO UNLOCK FROM ANY SWITCH 409
*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ANY SWITCH. 410
*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ONE SWITCH 413
*ALL DOORS FAILING TO LOCK FROM ANY SWITCH 416
*ALL DOORS FAILING TO LOCK FROM ONE SWITCH 417
*ALL DOORS FAILING TO UNLOCK FROM ONE SWITCH 418
*AUTOMATIC (ROLLING) DOOR LOCKS INOPERATIVE 419
*DECKLID RELEASE INOPERATIVE 420
*DOOR LOCK INHIBIT INOPERATIVE 422
*DRIVER DOOR FAILS TO LOCK FROM ANY SWITCH 424
*DRIVER DOOR FAILS TO UNLOCK FROM ANY SWITCH 425
*ONE DOOR FAILS TO LOCK AND UNLOCK FROM ANY SWITCH 426
*REMOTE KEYLESS ENTRY PROBLEM 428
*RKE HORN CHIRP INOPERATIVE 430

POWER TOP
POWER TOP SWITCH OPEN OR SHORTED TO BATTERY 431
POWER TOP SWITCH SHORTED TO GROUND. 433
POWER TOP SWITCH STUCK 435
*FOUR WINDOW DROP INOPERATIVE. 437

VEHICLE THEFT/SECURITY
DECKLID SWITCH DISARM FAILURE 439
*ALARM TRIPS ON ITS OWN 441
*COURTESY LAMPS INOPERATIVE WITH ALARM TRIPPED 442
*DRIVER DOOR KEY FAILS TO ARM OR DISARM VTSS 443
*HEADLAMPS INOPERATIVE WITH ALARM TRIPPED (IF ENABLED) 444
*HORNS FAIL TO SOUND WITH ALARM TRIPPED (IF ENABLED) 446
*VTSS DOES NOT TRIP FROM DRIVER DOOR 447
*VTSS DOES NOT TRIP FROM LEFT REAR DOOR 448
*VTSS DOES NOT TRIP FROM PASSENGER DOOR 449
*VTSS DOES NOT TRIP FROM RIGHT REAR DOOR 450
*VTSS INDICATOR INOPERATIVE 451
*VTSS NO TRIP FROM DECKLID 453
*VTSS WILL NOT ARM 454

WINDSHIELD WIPER & WASHER
WIPER ON/OFF RELAY OUTPUT SHORTED HIGH 455
WIPER ON/OFF RELAY OUTPUT SHORTED LOW 456
WIPER PARK SWITCH OPEN CIRCUIT 458
WIPER PARK SWITCH SHORTED TO GROUND 460
*HEADLAMP WASHER INOPERATIVE 462

VERIFICATION TESTS
VERIFICATION TESTS 464

8.0 COMPONENT LOCATIONS 469

8.1 AIRBAG SYSTEM 469
8.1.1 BASE SYSTEM 469
8.1.2 PREMIUM SYSTEM 469
8.2 HVAC UNIT 470
8.3 POWER DOOR LOCKS/RKE 471
8.3.1 DRIVER CYLINDER LOCK SWITCH 471
8.3.2 DECKLID RELEASE SOLENOID 471
8.3.3 REMOTE KEYLESS ENTRY MODULE 471
8.4 POWER TOP 472
8.4.1 POWER TOP RELAY 472
8.4.2 WINDOW DROP RELAY ASSEMBLY 472
8.5 VEHICLE THEFT SECURITY SYSTEM 473
8.5.1 DECKLID CYLINDER LOCK SWITCH 473

9.0 CONNECTOR PINOUTS 475

A/C EVAPORATOR TEMPERATURE SENSOR - BLACK 2 WAY 475
A/C-HEATER CONTROL C1 (MTC) - NATURAL 8 WAY 475
A/C-HEATER CONTROL C2 (MTC) - BLACK 10 WAY 475
AIRBAG CONTROL MODULE (ORC) (BASE) - YELLOW 23 WAY 476
AIRBAG CONTROL MODULE C1 (ORC) (PREMIUM) - YELLOW 32 WAY 477
AIRBAG CONTROL MODULE C2 (ORC) (PREMIUM) - YELLOW 32 WAY 478
AUTOMATIC TEMPERATURE CONTROL HEAD - BLACK 12 WAY 478
BLEND DOOR ACTUATOR - NATURAL 5 WAY 479
BLOWER MOTOR - BLACK 2 WAY 479
BLOWER MOTOR POWER MODULE C1 (ATC) - BLACK 4 WAY 479
BLOWER MOTOR POWER MODULE C2 (ATC) - BLACK 2 WAY 479

TABLE OF CONTENTS - Continued

BLOWER MOTOR RESISTOR BLOCK (MTC) - BLACK 10 WAY 480
BODY CONTROL MODULE C1 - 16 WAY 480
BODY CONTROL MODULE C2 - 26 WAY 481
BODY CONTROL MODULE C3 - GRAY 16 WAY 482
BODY CONTROL MODULE C4 - 26 WAY 482
C200 (ATC) - (HVAC SIDE) 483
C200 (ATC) - WHITE (INSTRUMENT PANEL SIDE) 483
C200 (MTC) - NATURAL (HVAC SIDE) 483
C200 (MTC) - NATURAL (INSTRUMENT PANEL SIDE) 484
C304 (JR41) - YELLOW (INSTRUMENT PANEL SIDE) 484
C304 (JR41) - YELLOW (UNIBODY SIDE) 484
C310 - BROWN (INSTRUMENT PANEL SIDE). 485
C310 - BROWN (LEFT FRONT DOOR SIDE). 485
C311 - BLUE (INSTRUMENT PANEL SIDE) 486
C311 - BLUE (LEFT FRONT DOOR SIDE) 486
CD CHANGER - BLACK 8 WAY 487
CLOCKSPRING C1 - 5 WAY 487
CLOCKSPRING C2 - YELLOW 2 WAY 487
CLOCKSPRING C3 - 4 WAY 487
COMPASS/MINI-TRIP COMPUTER - BLACK 6 WAY. 487
CONTROLLER ANTILOCK BRAKE - 24 WAY 488
DATA LINK CONNECTOR - BLACK 16 WAY 488
DECKLID CYLINDER LOCK SWITCH (VTSS) - 2 WAY. 489
DECKLID RELEASE SOLENOID/AJAR SWITCH (JR27 EARLY BUILD/JR41 EXPORT EARLY BUILD) - 3 WAY 489
DECKLID RELEASE SOLENOID/AJAR SWITCH (JR41 EXCEPT EXPORT EARLY BUILD) - 3 WAY 489
DECKLID RELEASE SOLENOID/AJAR SWITCH (LATE BUILD) - BLACK 3 WAY . .489
DECKLID RELEASE SWITCH - BLACK 2 WAY 490
DOME LAMP (JR41) - BLACK 3 WAY. 490
DRIVER AIRBAG SQUIB 1 - GRAY 2 WAY. 490
DRIVER AIRBAG SQUIB 2 - BLACK 2 WAY. 490
DRIVER CYLINDER LOCK SWITCH (VTSS) - GRAY 2 WAY 490
DRIVER DOOR LOCK MOTOR/AJAR SWITCH - BLACK 4 WAY 491
DRIVER DOOR LOCK SWITCH - NATURAL 4 WAY 491
DRIVER POWER WINDOW MOTOR (JR27) - BLACK 2 WAY 491
DRIVER SEAT BELT SWITCH (JR41 EXCEPT EXPORT) - GRAY 2 WAY. 491
DRIVER SEAT BELT TENSIONER (JR27) - YELLOW 4 WAY. 492
DRIVER SEAT BELT TENSIONER (JR41) - YELLOW 2 WAY. 492
FRONT WASHER PUMP MOTOR - BLACK 2 WAY. 492
FRONT WIPER MOTOR (EARLY BUILD) - 4 WAY. 492
FUEL PUMP MODULE - 4 WAY. 493
HEADLAMP LEVELING SWITCH (EXPORT) - BLACK 3 WAY 493
HEADLAMP WASHER PUMP MOTOR (JR41 EXPORT) - 2 WAY 493
HORN - BLACK 2 WAY 493
IGNITION SWITCH C1 - BLACK 2 WAY 493
IGNITION SWITCH C2 - BLACK 10 WAY 494
IGNITION SWITCH C3 - GREEN 2 WAY 494
INSTRUMENT CLUSTER - 26 WAY 494
FUSES (JB) 496
HEADLAMP DELAY RELAY 496
HORN RELAY 496
REAR WINDOW DEFOGGER RELAY. 496

TABLE OF CONTENTS - Continued

JUNCTION BLOCK BODY CONTROL MODULE JB - 12 WAY 497
JUNCTION BLOCK C1 - BROWN 12 WAY 497
JUNCTION BLOCK C2 - 10 WAY 497
JUNCTION BLOCK C3 - WHITE 4 WAY 498
JUNCTION BLOCK C4 - BLUE 10 WAY 498
JUNCTION BLOCK C5 - GRAY 16 WAY 498
JUNCTION BLOCK C6 - WHITE 6 WAY 499
JUNCTION BLOCK C7 - NATURAL 12 WAY 499
JUNCTION BLOCK C8 - BLACK 8 WAY 499
JUNCTION BLOCK C9 - WHITE 12 WAY 500
JUNCTION BLOCK C10 - NATURAL 6 WAY 500
JUNCTION BLOCK C11 (EXPORT) - BLACK 8 WAY 500
LEFT CURTAIN AIRBAG SQUIB (JR41) - YELLOW 2 WAY 501
LEFT FRONT DOOR SPEAKER - BLACK 3 WAY 501
LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE) - BLACK 3 WAY 501
LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM) - BLACK 2 WAY 501
LEFT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM) - 3 WAY 502
LEFT REAR DOOR LOCK MOTOR/AJAR SWITCH (JR41) - BLACK 4 WAY 502
LEFT REAR POWER WINDOW MOTOR - 2 WAY 502
LEFT REAR POWER WINDOW SWITCH (JR41) - BLUE 6 WAY 502
LEFT REAR SPEAKER - 3 WAY 503
LEFT REMOTE RADIO SWITCH (2.7L) - 2 WAY 503
LEFT SIDE IMPACT SENSOR 1 - GRAY 2 WAY 503
MASTER POWER WINDOW SWITCH - BLUE 12 WAY 504
MODE DOOR ACTUATOR - BLACK 5 WAY 504
MULTI-FUNCTION SWITCH C1 - NATURAL 10 WAY 504
MULTI-FUNCTION SWITCH C2 - BLUE 12 WAY 505
OIL PRESSURE SWITCH - 2 WAY 505
PASSENGER AIRBAG - YELLOW 4 WAY 505
PASSENGER DOOR LOCK MOTOR/AJAR SWITCH - BLACK 4 WAY 505
PASSENGER DOOR LOCK SWITCH - NATURAL 4 WAY 506
PASSENGER POWER WINDOW MOTOR (JR27) - BLACK 2 WAY 506
PASSENGER POWER WINDOW MOTOR (JR41 EARLY BUILD) - 2 WAY 506
PASSENGER POWER WINDOW MOTOR (JR41 LATE BUILD) - LT. GRAY 2 WAY .506
PASSENGER POWER WINDOW SWITCH - BLUE 6 WAY 507
PASSENGER SEAT BELT TENSIONER (JR27) - YELLOW 4 WAY 507
PASSENGER SEAT BELT TENSIONER (JR41) - YELLOW 2 WAY 507
POWER AMPLIFIER C1 (JR27 PREMIUM) - WHITE 12 WAY 507
POWER AMPLIFIER C1 (JR41 PREMIUM) - WHITE 22 WAY 508
POWER AMPLIFIER C2 (JR27 PREMIUM) - WHITE 18 WAY 508
POWER AMPLIFIER C2 (JR41 PREMIUM) - WHITE 12 WAY 509
POWER ANTENNA (EXPORT) - BROWN 2 WAY 509
FUSES (PDC) 511
HEADLAMP WASHER RELAY (JR41 EXPORT) 511
HEATED SEAT RELAY 511
POWER TOP PUMP MOTOR (JR27) - RED 2 WAY 512
POWER TOP SWITCH (JR27) - 3 WAY 512
POWER TOP UP/DOWN RELAYS (JR27) - 6 WAY 512
POWERTRAIN CONTROL MODULE C1 (NGC EARLY BUILD) - 38 WAY 513
POWERTRAIN CONTROL MODULE C1 (NGC LATE BUILD) - 38 WAY 514
POWERTRAIN CONTROL MODULE C1 (SBEC EARLY BUILD) - GRAY 40 WAY . .515
POWERTRAIN CONTROL MODULE C2 (NGC EARLY BUILD) - 38 WAY 516

POWERTRAIN CONTROL MODULE C2 (NGC LATE BUILD) - 38 WAY 517
POWERTRAIN CONTROL MODULE C2 (SBEC EARLY BUILD) - GRAY 40 WAY . .518
POWERTRAIN CONTROL MODULE C3 (NGC EARLY BUILD) - 38 WAY 519
POWERTRAIN CONTROL MODULE C3 (NGC LATE BUILD) - 38 WAY 520
POWERTRAIN CONTROL MODULE C4 (NGC) - 38 WAY 521
RADIO C1 - WHITE 22 WAY 522
RADIO C2 - BLACK 10 WAY 522
RECIRCULATION DOOR ACTUATOR - 2 WAY 522
RIGHT CURTAIN AIRBAG SQUIB (JR41) - YELLOW 2 WAY 523
RIGHT FRONT DOOR SPEAKER - BLACK 3 WAY 523
RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE) - BLACK 3 WAY . .523
RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM) - BLACK 2 WAY 523
RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM) - 3 WAY 524
RIGHT REAR DOOR LOCK MOTOR/AJAR SWITCH (JR41) - BLACK 4 WAY 524
RIGHT REAR POWER WINDOW MOTOR - 2 WAY. 524
RIGHT REAR POWER WINDOW SWITCH (JR41) - BLUE 6 WAY. 524
RIGHT REAR SPEAKER - 3 WAY 525
RIGHT REMOTE RADIO SWITCH (2.7L) - 2 WAY. 525
RIGHT SIDE IMPACT SENSOR 1 - GRAY 2 WAY 525
SENTRY KEY IMMOBILIZER MODULE - BLACK 6 WAY 525
SUN SENSOR (ATC) - BLACK 4 WAY 525
TRACTION CONTROL SWITCH - 2 WAY. 526
TRANSMISSION CONTROL MODULE (2.7L EARLY BUILD) - BLACK 60 WAY 527
WINDOW DROP RELAY ASSEMBLY (JR27) - 12 WAY. 528

10.0 SCHEMATIC DIAGRAMS. 529

10.1 AIRBAG SYSTEMS. 529
10.1.1 BASE 529
10.1.2 PREMIUM 530
10.2 AUDIO SYSTEM 531
10.2.1 BASE RADIO–JR41 531
10.2.2 BASE RADIO–JR27 532
10.2.3 PREMIUM SYSTEM–JR41. 533
10.2.4 PREMIUM SYSTEM–JR27. 534
10.2.5 CD CHANGER. 535
10.2.6 REMOTE RADIO CONTROLS. 535
10.3 CHIME SYSTEM. 536
10.4 COMPASS/MINI TRIP COMPUTER (CMTC). 536
10.5 DOOR AJAR 537
10.6 ELECTRICALLY HEATED SYSTEMS 538
10.6.1 HEATED SEAT RELAY 538
10.6.2 REAR WINDOW DEFOGGER (AUTOMATIC TEMPERATURE CONTROL) 538
10.6.3 REAR WINDOW DEFOGGER (MANUAL TEMPERATURE CONTROL) 539
10.7 EXTERIOR LIGHTING (HEADLAMPS) 540
10.8 HEATING AND A/C 541
10.8.1 AUTOMATIC TEMPERATURE CONTROL (ATC) 541
10.8.2 MANUAL TEMPERATURE CONTROL (MTC). 542
10.9 IGNITION, POWER, ACCESSORY 543

10.10 INTERIOR LIGHTING 544
10.10.1 COURTESY LAMPS 544
10.10.2 PANEL LAMPS 544
10.11 MECHANICAL INSTRUMENT CLUSTER 545
10.12 POWER DOOR LOCKS/RKE 546
10.13 POWER TOP 547
10.13.1 CONVERTIBLE TOP 547
10.13.2 POWER TOP/4 WINDOW DROP 548
10.14 VEHICLE COMMUNICATION 549
10.14.1 PCI BUS COMMUNICATION 549
10.14.2 PCM COMMUNICATION 550
10.14.3 PCM COMMUNICATION - NGC 550
10.15 VEHICLE THEFT SECURITY SYSTEM 551
10.16 WIPER SYSTEM 552
10.16.1 WIPER SWITCH 552
10.16.2 FRONT WIPERS 552

1.0 INTRODUCTION

The procedures contained in this manual include all the specifications, instructions and graphics needed to diagnose **JR body system problems.** The diagnostics in this manual are based on the failure, condition or symptom being present at the time of diagnosis.

Please follow the recommendations below when choosing your diagnostic path.

1. First make sure the DRBIII® is communicating with the appropriate module; i.e., if the DRBIII® shows a "no response" condition, you must diagnose that first.
2. Read DTC's (diagnostic trouble codes) with the DRBIII®.
3. If no DTC's are present, identify the customer complaint.
4. Once the DTC or customer complaint is identified, locate the matching test in the Table of Contents and begin to diagnose the symptom.

All component location views are in Section 8.0.
All connector pinouts are in Section 9.0.
All schematics are in Section 10.0.
An * placed before the symptom description indicates a customer complaint.

When repairs are required, refer to the appropriate service manual for the proper removal and installation procedure.

Diagnostic procedures change every year. New diagnostic systems may be added: carry over systems may be enhanced. READ THIS MANUAL BEFORE TRYING TO DIAGNOSE A VEHICLE DIAGNOSTIC TROUBLE CODE. It is recommended that you review the entire manual to become familiar with all the new and changed diagnostic procedures.

This book reflects many suggested changes from readers of past issues. After using this book, if you have any comments or suggestions, please fill out the form in the back of this book and mail it back to us.

1.1 SYSTEM COVERAGE

This diagnostic procedures manual covers all Chrysler Sebring convertible and four door models, and Dodge Stratus four door models.

1.2 SIX-STEP TROUBLESHOOTING PROCEDURE

Diagnosis of the body system is done in six basic steps:

- verification of complaint
- verification of any related symptoms
- symptom analysis
- problem isolation
- repair of isolated problem
- verification of proper operation

1.3 FUSES AND LIGHT BULBS

When replacing a blown fuse, it is important to use only a fuse having the correct amperage rating. The use of a fuse with a rating other than indicated may result in a dangerous electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected.

When replacing HALOGEN bulbs, do not touch the new bulb with your fingers. Oil contamination will severely shorten bulb life. If the bulb comes in contact with an oily surface, clean the bulb with rubbing alcohol.

2.0 IDENTIFICATION OF SYSTEM

The vehicle systems that are part of the "body" system are:

- Airbag System
- Audio
- Chimes
- Compass/Mini-Trip
- Door Ajar
- Exterior Lighting
- Heating and A/C (Automatic and Manual)
- Interior Lighting
- Mechanical Instrument Cluster
- Power Door Locks/Remote Keyless Entry
- Power Convertible Top
- Vehicle Communications
- Vehicle Theft Security System
- Wiper/Washer

3.0 SYSTEM DESCRIPTION AND FUNCTIONAL OPERATION

The JR body system consists of a combination of modules that communicate over the PCI bus (Programmable Communication Interface multiplex system). Through the PCI bus, information about the operation of vehicle components and circuits is relayed quickly to the appropriate modules. All modules receive all the information transmitted on the bus even though a module may not require all information to perform its function. It will only

respond to messages “addressed” to it through a binary coding process. This method of data transmission significantly reduces the complexity of the wiring in the vehicle and the size of wiring harnesses. All of the information about the functioning of all the systems is organized, controlled and communicated by the PCI bus, which is described in the Vehicle Communication section of this General Information.

Always begin by reading the diagnostic trouble codes using the DRBIII®. Next, look for the symptom in the Diagnostic Information and Procedures section of the Table of Contents located in the front of the book. This will direct you to the specific tests that must be performed.

Important Note:

If the Powertrain Control Module has been changed and the correct VIN and mileage have not been programmed, a DTC will be set in the Airbag module. In addition, if the vehicle is equipped with a Sentry Key Immobilizer Module (SKIM), Secret Key data must be updated to enable starting. Refer to the 2004 JR Powertrain Diagnostic Manual for more information. Erase codes in all modules.

3.1 AIRBAG SYSTEM

The JR Airbag System contains the following components: two types of Occupant Restraint Controller or (ORC), base and premium, Airbag Warning Indicator, Clockspring, Driver and Passenger Dual Squib Airbags, Seat belt Tensioners, Left and Right Side Impact Sensors, and Curtain (roof mounted) Airbags. The (ORC) is a new type of Airbag Control Module (ACM) that supports staged airbag deployment. The term Airbag Control Module or ACM will be used throughout the airbag diagnostic section and in the Diagnostic Readout Box or DRB III®. The Base ACM can be identified by the present of a single yellow 23 - way connector. This module supports the Driver and Passenger Seat Belt Tensioners and dual squib airbags.

The ACM has four major functions: PCI Bus communications, onboard diagnostics, impact sensing, and component deployment. The ACM sends and/or receives PCI Bus messages with the Instrument Cluster (MIC), Body Control Module (BCM), and Powertrain Control Module (PCM). Diagnostic trouble codes will be set if the communication with these modules is lost or contains invalid information. If the ACM detects a monitored system fault, it sends a message to the instrument cluster via PCI bus to turn on the Airbag Warning Indicator. The ACM can set both active and stored diagnostic trouble codes to aid in the diagnosing system problems. See DIAGNOSTIC TROUBLE CODES in this section.

The ACM has an internal accelerometer that senses the rate of vehicle deceleration, which provides verification of the direction and severity of an impact. A pre-programmed decision algorithm in the ACM microprocessor determines when the deceleration rate is severe enough to require airbag system protection. The ACM also uses the crash severity to determine the level of driver and front passenger deployment, staged deployment low medium or high. Staged deployment is the ability to trigger airbag system squib inflators all at once or individually as needed to provide the appropriate restraint for the severity of the impact. When the programmed conditions are met, the ACM sends an electrical signal to deploy the appropriate airbag system components. The ACM stores enough electrical energy to deploy the airbag components for two seconds following a battery disconnect or failure during an impact.

The Premium ACM can be identified by the present of a two yellow 32 - way connectors and the presents of side curtain airbag. In addition to the base system components and DTC’s the premium ACM supports the Side Impact Sensors, side Curtain Airbags. In addition to the ACM accelerometer the premium module uses Side Impact Sensors to identify the direction and severity of a side impact and deploy the appropriate side curtain airbag. In addition to the base ACM DTCs the premium ACM provides DTC’s for the additional circuit and component.

Both modules are secured to the floor panel transmission tunnel between the front seats inside the vehicle. Airbag Control Modules cannot be repaired or adjusted and must be replaced.

WARNING: THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY OR DEATH.

WARNING: NEVER STRIKE OR KICK THE AIRBAG CONTROL MODULE OR SIDE IMPACT SENSORS, AS IT CAN DAMAGE THE INTERNAL ACCELERATION SENSOR OR AFFECT ITS CALIBRATION. IF AN AIRBAG CONTROL MODULE OR SIDE IMPACT SENSOR IS ACCIDENTALLY DROPPED DURING SERVICE, THE MODULE OR SENSOR MUST BE SCRAPPED AND REPLACED WITH A NEW UNIT. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.

The Airbag Warning Indicator is the only point at which the customer can observe symptoms of a system malfunction. Whenever the ignition key is turned to the run or start position, the MCI performs a lamp check by turning the Airbag Warning Indicator on for 6-8 seconds. After the lamp check, if the indicator turns off, it means that the ACM has checked the system and found it to be free of discernible malfunctions. If the lamp remains on, there could be an active fault in the system or the MIC lamp circuit may be internally shorted to ground. If the lamp comes on and stays on for a period longer than 6-8 seconds, then goes off, there is usually an intermittent problem in the system.

3.1.1 DRIVER AIRBAG

The airbag protective trim cover is the most visible part of the driver side airbag system. The protective trim cover is fitted to the front of the airbag module and forms a decorative cover in the center of the steering wheel. The module is mounted directly to the steering wheel. Located under the trim cover are the horn switch, the airbag cushion, and the airbag cushion supporting components. The airbag module includes a housing to which the cushion and hybrid inflator are attached and sealed. The driver airbag has dual stage squib inflators that include a small canister of highly compressed argon gas. The ACM uses vehicle crash severity, to determine the level of airbag deployment. When supplied with the proper electrical signal, the hybrid inflator or inflators discharge the compressed gas it contains directly into the cushion. The airbag module cannot be repaired, and must be replaced if deployed or in any way damaged.

WARNING: THE DRIVER AIRBAG MODULE CONTAINS ARGON GAS PRESSURIZED TO OVER 17236.89 Kpa (2500 PSI). DO NOT ATTEMPT TO DISMANTLE AN AIRBAG MODULE OR TAMPER WITH ITS INFLATOR. DO NOT PUNCTURE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY. DO NOT STORE AT TEMPERATURE EXCEEDING 93°C (200°F). REPLACE AIRBAG SYSTEM COMPONENTS ONLY WITH PARTS SPECIFIED IN THE CHRYSLER MOPAR PARTS CATALOG. SUBSTITUTE PARTS MAY APPEAR INTER-CHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION. THE FASTENERS, SCREWS, AND BOLTS ORIGINALLY USED FOR THE AIRBAG SYSTEM COMPONENTS HAVE SPECIAL COATINGS AND ARE SPECIFICALLY DESIGNED FOR THE AIRBAG SYSTEM. THEY MUST NEVER BE REPLACED WITH ANY SUBSTITUTES. ANY TIME A NEW FASTENER IS NEEDED, REPLACE IT WITH THE CORRECT FASTENERS PROVIDED IN THE SERVICE PACKAGE OR SPECIFIED IN THE MOPAR PARTS CATALOG. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.

CAUTION: Deployed front airbags may or may not have live pyrotechnic material within the airbag inflator. Do not dispose of driver and passenger airbags unless you are sure of complete deployment. Please refer to the hazardous substance control system for proper disposal. Dispose of deployed airbags in a manner consistent with state, provincial, local, and federal regulations. Use the following table to identify the status of the airbag squib.

DRIVER AIRBAG SQUIB STATUS

(1) Using a DRBIII® read Airbag DTC's
If the following active codes are present:

ACTIVE DTC	CONDITIONS	SQUIB STATUS
Driver Squib 1 open Driver Squib 2 open	Check the stored codes **AND IF** the stored minutes for both are within 15 minutes of each other.	Both Driver Squib 1 and 2 were used.
Driver Squib 1 open Driver Squib 2 open	Check the stored codes **AND IF** the stored minutes for Driver Squib 2 open is GREATER than the stored minutes for Driver Squib 1 by 15 minutes or more.	Driver Squib 1 was used; Driver Squib 2 is live.
Driver Squib 1 open Driver Squib 2 open	Check the stored codes **AND IF** the stored minutes for Driver Squib 1 open is GREATER than the stored minutes for Driver Squib 2 by 15 minutes or more.	Driver Squib 1 is live; Driver Squib 2 was used.
If Driver Squib 1 open is an active code.	Check the stored DTC's **AND IF** Driver Squib 2 open is NOT an active code.	Driver Squib 1 was used; Driver Squib 2 is live.
If Driver Squib 2 open is an active code.	Check the stored DTC's **AND IF** Driver Squib 1 open is NOT an active code.	Driver Squib 1 is live; Driver Squib 2 was used.

If neither of the following codes is an active code:

DTC	SQUIB STATUS
Driver squib 1 open Driver squib 2 open	Status of Airbag is Unknown.

3.1.2 CLOCKSPRING

The clockspring is mounted on the steering column behind the steering wheel. The assembly consist of a plastic housing which contains a flat, ribbon-like, electrically conductive tape that winds and unwinds with the steering wheel rotation. The clockspring is used to maintain a continuous electrical circuit between the instrument panel wiring the driver airbag, the horn, and the vehicle speed control switches if equipped. The clockspring must be properly centered when it is reinstalled on the steering column following any service procedure, or it could be damaged. The clockspring cannot be repaired and it must be replaced.

3.1.3 PASSENGER AIRBAG

The airbag door in the instrument panel top cover above the glove box is the most visible part of the passenger side airbag system. The airbag door has a living hinge at the top, which is secured to the instrument panel top cover. Located under the airbag door is the airbag cushion and it's supporting components. The Passenger Airbag includes a housing to which the cushion, dual stage hybrid inflators, and a small canister of highly compressed argon gas are attached and sealed. The ACM uses vehicle crash severity, to determine the level of airbag deployment. When supplied with the proper electrical signal, the hybrid inflator or inflator's discharge the compressed gas if contains directly into the airbag. The airbag cannot be repaired, and must be replaced if deployed or in any way damaged.

WARNING: THE PASSENGER AIRBAG CONTAINS ARGON GAS PRESSURIZED TO 17236.89 Kpa (2500 PSI). DO NOT ATTEMPT TO DISMANTLE AN AIRBAG MODULE OR TAMPER WITH ITS INFLATOR. DO NOT PUNCTURE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY. DO NOT STORE AT TEMPERATURE EXCEEDING 93°C (200°F). REPLACE AIRBAG SYSTEM COMPONENTS ONLY WITH PARTS SPECIFIED IN THE MOPAR PARTS CATALOG. SUBSTITUTE PARTS MAY APPEAR INTER-CHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION. THE FASTENERS, SCREWS, AND BOLTS ORIGINALLY USED FOR THE AIRBAG SYSTEM COMPONENTS HAVE SPECIAL COATINGS AND ARE SPECIFICALLY DESIGNED FOR THE AIRBAG SYSTEM. THEY MUST NEVER BE REPLACED WITH ANY SUBSTITUTES. ANY TIME A NEW FASTENER IS NEEDED, REPLACE IT WITH THE CORRECT FASTENERS PROVIDED IN THE SERVICE PACKAGE OR SPECIFIED IN THE MOPAR PARTS CATALOG. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.

CAUTION: Deployed front airbags may or may not have live pyrotechnic material within the airbag inflator. Do not dispose of driver and passenger airbags unless you are sure of complete deployment. Please refer to the hazardous substance control system for proper disposal. Dispose of deployed airbags in a manner consistent with state, provincial, local, and federal regulations. Use the following table to identify the status of the airbag squib.

PASSENGER AIRBAG SQUIB STATUS

(1) Using a DRBIII® read Airbag DTC's
If the following active codes are present:

ACTIVE DTC	CONDITIONS	SQUIB STATUS
Passenger Squib 1 open Passenger Squib 2 open	Check the stored DTC's **AND IF** the stored minutes for both are within 15 minutes of each other.	Both Passenger Squib 1 and 2 were used.
Passenger Squib 1 open Passenger Squib 2 open	Check the stored DTC's **AND IF** the stored minutes for Passenger Squib 2 open is GREATER than the stored minutes for Passenger Squib 1 by 15 minutes or more.	Passenger Squib 1 was used; Passenger Squib 2 is live.
Passenger Squib 1 open Passenger Squib 2 open	Check the stored DTC's **AND IF** the stored minutes for Passenger Squib 1 open is GREATER than the stored minutes for Driver Squib 2 by 15 minutes or more.	Passenger Squib 1 is live; Driver Squib 2 was used.
If Passenger Squib 1 open is an active code.	Check the stored DTC's **AND IF** Passenger Squib 2 open is NOT an active code.	Passenger Squib 1 was used; Passenger Squib 2 is live.
If Passenger Squib 2 open is an active code.	Check the stored DTC's **AND IF** Passenger Squib 1 open is NOT an active code.	Passenger Squib 1 is live; Passenger Squib 2 was used.

If neither of the following codes is an active code:

DTC	SQUIB STATUS
Passenger squib 1 open Passenger squib 2 open	Status of Airbag is Unknown.

3.1.4 SEAT BELT TENSIONER (SBT)

The JR41 4-door driver and front passenger seat belt (retractor) tensioners are mounted to the inboard side of the "B" pillar at the floor. The tensioner is an integral part of the seat belt retractor.

The JR27 convertible driver and front passenger seat belt (buckle) tensioners are mounted to the inboard side of the front seats. The seat belt buckle is connected directly to the seat belt tensioner cable.

At the onset of an impact event the ACM uses the seat belt tensioner to rapidly retract the seat belt. With the slack removed, the occupant's forward motion in an impact will be reduced as will the likelihood of contacting interior components. The seat belt tensioner cannot be repaired, if damaged or defective it must be replaced. The ACM continuously monitors the resistance of the seat belt tensioner circuits an open or shorted conditions.

3.1.5 SIDE IMPACT SENSORS

The side impact sensors are electronic accelerometers that sense the rate of vehicle deceleration. Side impact sensors and the ACM Accelerometer provides verification of the direction and severity of a side impact to the ACM processor. The left side impact sensor provides impact sensing for impacts on the left side of the vehicle and the right side impact sensor provides sensing for impacts on the right side of the vehicle.

The side impact sensors receive battery current and ground from he ACM through dedicated driver and passenger sensor signal and ground circuits. The ACM communicate with the Side Impact Sensors by modulating the current in the sensor signal circuit. Each sensor communicates the sensor status as well as sensor fault information to the microprocessor in the Airbag Control Module.

The ACM microprocessor continuously monitors all of the sensors electrical circuits to determine the system readiness. If the ACM detects a system fault, it sets a Diagnostic Trouble Code and controls the airbag warning indicator operation accordingly. When needed the supplemental driver or passenger curtain airbags are deployed independently by the ACM to provide side impact protection for the occupants.

WARNING: THE AIRBAG SYSTEM IS A SENSITIVE, COMPLEX ELECTROMECHANICAL UNIT. BEFORE ATTEMPTING TO DIAGNOSE OR SERVICE ANY AIRBAG SYSTEM OR RELATED STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENTS YOU MUST FIRST DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE. WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE FURTHER SYSTEM SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE AIRBAG SYSTEM. FAILURE TO DO THIS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY OR DEATH.

WARNING: NEVER STRIKE OR KICK THE AIRBAG CONTROL MODULE, AS IT CAN DAMAGE THE INTERNAL ACCELERATION SENSOR OR AFFECT ITS CALIBRATION. IF AN AIRBAG CONTROL MODULE OR SIDE IMPACT SENSOR IS ACCIDENTALLY DROPPED DURING SERVICE, THE MODULE OR SENSOR MUST BE SCRAPPED AND REPLACED WITH A NEW UNIT. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.

CAUTION: Do not remove or install the impact sensors while the sensor is attached to the vehicle wiring.

3.1.6 CURTAIN AIRBAGS

The Left and Right curtain airbag modules are located in the outboard edge of the roof under the headliner, just above the door opening. The curtain airbag contains a squib and inflator (a small canister of highly compressed argon gas) and a mounting bracket mounted to the "C" post and tethered to the "A" post. When supplied with the proper electrical signal the inflator can discharge the compress gas it contains directly into the curtain airbag. Upon deployment, the curtain will tear open the headliner allowing the curtain airbag to fully deploy between the headliner and seat. The curtain airbag module cannot be repaired and must be replaced if deployed or in any way damaged.

WARNING: THE PASSENGER AIRBAG MODULE CONTAINS ARGON GAS PRESSURIZED TO 17236.89 Kpa (2500 PSI). DO NOT ATTEMPT TO DISMANTLE AN AIRBAG MODULE OR TAMPER WITH ITS INFLATOR. DO NOT PUNCTURE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY. DO NOT STORE AT TEMPERATURE EXCEEDING 93°C (200°F). REPLACE AIRBAG SYSTEM COMPONENTS ONLY WITH PARTS SPECIFIED IN THE MOPAR PARTS CATALOG. SUBSTITUTE PARTS MAY APPEAR INTERCHANGEABLE, BUT INTERNAL DIFFERENCES MAY RESULT IN INFERIOR OCCUPANT PROTECTION. THE FASTENERS, SCREWS, AND BOLTS ORIGINALLY USED FOR THE AIRBAG SYSTEM COMPONENTS HAVE SPECIAL COATINGS AND ARE SPECIFICALLY DESIGNED FOR THE AIRBAG SYSTEM. THEY MUST NEVER BE REPLACED WITH ANY SUBSTITUTES. ANY TIME A NEW FASTENER IS NEEDED, REPLACE IT WITH THE CORRECT FASTENERS PROVIDED IN THE SERVICE PACKAGE OR SPECIFIED IN THE MOPAR PARTS CATALOG. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.

3.1.7 SPECIAL TOOLS

Some airbag diagnostic test use special tools, 8310 and 8443 airbag load tool, for testing squib circuits. The load tools contain fixed resistive loads, jumpers and adapters. The fixed loads are connected to cables and mounted in a storage case. The cables can be directly connected to some airbag system connectors. Jumpers are used to convert the load tool cable connectors to the other airbag system connectors. The adapters are connected to the module harness connector to open shorting clips and protect the connector terminal during testing. When using the load tool follow all of the safety procedures in the service information for disconnecting airbag system components. Inspect the wiring, connector and terminals for damage or misalignment. Substitute the airbag load tool in place of a Driver or Passenger Airbag, curtain airbag, clockspring, or seat belt tensioner (use a jumper if

needed). Then follow all of the safety procedures in the service information for connecting airbag system components. Read the module active DTC's. If the module reports NO ACTIVE DTC's the defective component has been removed from the system and should be replaced. If the DTC is still active, continue this process until all components in the circuit have been tested. Then disconnect the module connector and connect the matching adapter to the module connector. With all airbags disconnected and the adapter installed the squib wiring can be tested for open and shorted conditions.

3.1.8 DIAGNOSTIC TROUBLE CODES

Airbag diagnostic trouble codes consist of active and stored codes. If more than one code exists, diagnostic priority should be given to the active codes. Each diagnostic trouble code is diagnosed by following a specific testing procedure. The diagnostic test procedures contain step-by-step instructions for determining the cause of the trouble codes. It is not necessary to perform all of the tests in this book to diagnose an individual code. Always begin by reading the diagnostic trouble codes using the. Then begin diagnostic with the Table of Contents section 7.0. This will direct you to the specific test(s) that must be performed. Most active diagnostic trouble codes for the airbag system are not permanent and will change the moment the reason for the code is corrected. In certain test procedures within this manual, diagnostic trouble codes are used as a diagnostic tool.

3.1.9 ACTIVE CODES

The code becomes active as soon as the malfunction is detected or key-in, whichever occurs first. An active trouble code indicates an on-going malfunction or has occurred in that ignition cycle. This means that the defect is currently there every time the airbag control module checks that circuit or component. It is impossible to erase an active code. Active codes automatically erase by themselves when the reason for the code has been corrected or NOT present in the subsequent ignition cycle. With the exception of the warning lamp trouble codes or malfunctions, when a malfunction is detected, the airbag lamp remains lit for a minimum of 12 seconds or as long as the malfunction is present.

3.1.10 STORED CODES

Airbag codes are automatically stored in the ACM's memory as soon as the malfunction is detected. A stored code indicates there was an active code present at some time. However, the code currently may not be present as an active code. When a trouble code occurs, the airbag warning indicator illuminates for 12 seconds minimum (even if the problem existed for less than 12 seconds). The code is stored, along with the time in minutes it was active, and the number of times the ignition has been cycled since the problem was last detected. The minimum time shown for any code will be one minute, even if the code was actually present for less than one minute. Thus, the time shown for a code that was present for two minutes 13 seconds, for example, would be three minutes. If a malfunction is detected a diagnostic trouble code is stored and will remain stored. When and if the malfunction ceases to exist, an ignition cycle count will be initiated for that code. If the ignition cycle count reaches 100 without a reoccurrence of the same malfunction, the diagnostic trouble code is erased and that ignition cycle counter is reset to zero. If the malfunction reoccurs before the count reaches 100, then the ignition cycle counter will be reset and the diagnostic trouble code will continue to be a stored code. If a malfunction is not active while performing a diagnostic test procedure, the active code diagnostic test will not locate the source of the problem. In this case, the stored code can indicate an area to inspect. It no obvious problems are found, erase stored codes, and with the ignition on wiggle the wire harness and connectors, rotate the steering wheel from stop to stop. Recheck for codes periodically as you work through the system. This procedure may uncover a malfunction that is difficult to locate.

3.2 AUDIO SYSTEM

Some radio systems available on the JR communicate on the PCI Bus. They use the bus for four reasons. The first is to communicate trouble codes, second is to receive dimming information, third is to receive cabin equalization information and fourth is to control the remote radio switches located on the back of the steering wheel. The audio system is available in a 4 speaker or 6 speaker base system and a 6 speaker system with an external power amplifier. An in-dash CD Changer is also optional.

When troubleshooting output shorts or "output" error messages, the following applies:

On radios without an external amplifier, the term output refers to the path between the radio and the speaker. This type of circuit can be monitored all the way through the speaker connections by the radio assembly. When the radio displays a shorted output DTC with this type of system, the speaker, radio, or wiring could be at fault.

On radios with an external amplifier, the term "output" refers to the circuit between the radio connector and the amplifier. The radio is capable of monitoring only this portion and can tell nothing about the circuit between the amplifier and the speakers. Consequently, a shorted output DTC on

this type of system would only refer to this circuit. A faulty speaker could not cause this DTC.

The new in-dash CD-changer is designed to fit into the existing cubby bin in the center stack. This new cartridge-less CD-changer is controlled by your radio, and allows you to individually load up to four discs at one time. However, due to its compact design, the CD-changer can only carry out one operation at a time. For example you can not load a new disc while playing another at the same time. Each operation happens sequentially.

The radio unit installed with the system provides control over all features of the CD-changer with the exception of the CD load and eject functions, which are controlled by buttons located on the front of the CD-changer. The radio also supplies the power, ground, PCI Bus, left and right speaker output through a single DIN cable. All features you would expect, such as Disc Up/Down, Track Up/Down, Random and Scan are controlled by the radio, which also displays all relevant CD-changer information on the radio display.

The CD-changer contains a Load/Eject button and an indicator light for each of the four disc positions. The individual light indicates whether a CD is currently loaded in that particular chamber of the CD-changer. Pressing the individual Load/Eject button for a particular chamber will eject a disc currently present in that chamber. If the chamber is currently empty, actuating the Load/Eject button will position that chamber to receive and load a new disc in that chamber.

3.2.1 REMOTE RADIO CONTROLS

These radios can be controlled via remote radio switches (optional). These switches are located on the back side of the steering wheel. They control mode, preset, seek up, seek down, volume up and volume down functions.

These functions are inputs to the Body Control Module and can be read with the DRBIII®. The switches are a multiplexed signal to the BCM. The radio control MUX circuit is a 5 volt line that is pulled to ground through different value resistors built into the switches. This causes a voltage drop to be seen by the BCM and it sends a specific message to the radio on the PCI Bus circuit. The radio then responses to the message.

This circuit is fairly simple to troubleshoot. The circuit must be complete from the switches in the steering wheel to the BCM. The ground must be complete so that the switches can cause the voltage drop for the BCM to see. The circuit passes through the clockspring so continuity through this device must be verified.

3.3 BODY CONTROL MODULE

The body control module (BCM) supplies vehicle occupants with visual and audible information and controls various vehicle functions. To provide and receive information, the module is interfaced to the vehicle's serial bus communications network (the Programmable Communication Interface or PCI bus). This network consists of the body control module (BCM), powertrain control module (PCM), sentry key immobilizer module (SKIM), the transmission control module (TCM), the electro/mechanical instrument cluster (MIC), compass/mini-trip computer (CMTC), airbag control module (ORC), optional antilock brakes (ABS), the optional automatic temperature control module, the optional radio and remote CD-player. The (BCM) is operational when battery power is supplied to the module, ignition switch power is needed for ignition switched functions.

The body control module provides the following features:

A/C switch status/evaporator temperature status
BCM diagnostic support
Central lock and unlock (VTSS only)
Climate Control system support
Door ajar switch status
Door Lock Inhibit (key in ignition or headlamps/park lamps on)
Electronic Odometer Support
Headlamp Time Delay
Illuminated Entry with “fade to off”
Interior lighting with battery save feature
Mechanical Instrument Cluster (fuel level, dim data, odometer & warning chime) support
Travel information system
Power convertible top
Power door lock multiplexing control
Rear Window Defogger Control
Remote Keyless Entry with Panic Mode
Remote power deck lid release
Remote radio switch control
Rolling door lock control (customer programmable)
Sentry key immobilizer support
Vehicle Theft Security System
Wiper Control (speed sensitive with return to park)

The BCM receives information over the PCI Bus from the PCM in order to support certain features.

The required information is as follows:

- Engine RPM
- Engine Temperature
- Injector on Time and Distance Pulses
- Vehicle Speed
- Charging System Failure, Engine Temperature Limp-In, VTSS Arming Status
- Engine Model

- "Check Engine" lamp status

The BCM provides the PCM with information on the A/C switch status and the VTSS status.

The JR has several customer programmable features which can be disabled or enabled by the customer.

FEATURE	DEFAULT	PROGRAMMING METHOD	FEEDBACK
Rolling Automatic Door Locks	Enabled	Close all doors Place vehicle key in the ignition and cycle between off and run four times ending in the off position Customer depresses the driver power door look switch to lock the doors Body Controller will toggle the enable/disable state of rolling locks	BCM provides a single chime to indicate completion of the programming
RKE-Horn Chirp	Enabled	Continually press the lock button for a minimum of 4 seconds to a maximum of 10 seconds Within the 4-10 second range, press the unlock button while continuing to press the lock button Release both buttons Body Controller will toggle on/off state of horn chirp feature	None
RKE-Rear Release Toggle	Press Twice	Continually press the unlock button for a minimum of 4 seconds to a maximum of 10 seconds Within the 4-10 second range, press the rear release button while continuing to press the unlock buttons Release both buttons RKE will toggle state of one press/two press rear release	
RKE Program New FOB (Using an already programmed FOB)	Not Applicable	Turn vehicle ignition switch on. With programmed FOB continually press the unlock button for a minimum of 4 seconds to a maximum of 10 seconds Within the 4-10 second range, press the panic button while continuing to press the unlock button Release both buttons Press lock and unlock together and then press any button of FOB(s) to be Learned. (Note: RKE system erases all FOBs when program mode is entered So any existing FOBs must also be Programmed	BCM will sound a second chime when programming mode is started BCM will sound a second chime after each FOB has been learned, a 32 second time out period has elapsed, or the vehicle ignition has been turned off Turn off ignition or wait for 32 seconds to exit programming mode
Auto Unlock on Exit	Enabled	Close all doors Place vehicle key in the ignition and cycle between off and run four times ending in the off position Customer depresses the driver power door unlock switch to unlock the doors Body Controller will toggle the enable/disable state of auto unlock on Exit	BCM provides a single chime to indicate completion of the programming

FEATURE	DEFAULT	PROGRAMMING METHOD	FEEDBACK
RKE Lamp Flash	Enabled	Continually press the lock button for a minimum of 4 seconds to a maximum of 10 seconds Within the 4-10 second range, press the trunk button while continuing to press the lock button Release both buttons Body Controller will toggle on/off state of lamp flash feature	None

3.4 CHIME SYSTEM

The chime system is comprised of an audible chime located internal to the BCM; and is dependent on various inputs to the BCM to operate. These inputs to the BCM include key-in ignition switch, exterior lamps as well as requests for the Mechanical Instrument Cluster from the seat belt switch input or whenever certain indicators are turned on.

3.5 COMPASS/MINI-TRIP COMPUTER

DESCRIPTION

The JR Compass/Mini-Trip Computer (CMTC) is located in the instrument panel between the center A/C outlets. The CMTC has two function buttons and a vacuum fluorescent (VF) display that provides the outside temperature, Trip Computer information, and one of eight compass headings to indicate the direction the vehicle is facing. The compass heading and the outside temperature are displayed at the same time.

The BCM calculates much of the information displayed by the CMTC. The BCM receives this information from PCI Bus messages, the PCM, and the Ambient Temperature Sensor. The Ambient Temperature Sensor (ATS) monitors the outside temperature and is hardwired to the PCM. The CMTC receives filtered outside temperature data via PCI Bus messages from the BCM. The ambient temperature sensor may receive invalid data whenever the vehicle is operated at low speeds, or the ignition is off for a short period of time. These causes for inaccuracy will be filtered out by the BCM.

The CMTC receives dedicated PCI Bus messages with the calculated information from the BCM for the trip computer displays.

The CMTC cannot be repaired and, if faulty or damaged it must be replaced. The incandescent lamp for the STEP and US/M button illumination is serviceable.

OPERATION

Actuation of the STEP button will cause the CMTC to change modes of operation. Actuation of the US/M button will toggle the display between English and Metric units. Trip Computer resets are accomplished by pressing the STEP and US/M buttons simultaneously. To reset only the trip information currently being displayed, press and release the STEP and US/M buttons simultaneously for one second until the chime sounds. To reset all trip information, press and hold the STEP and US/M buttons simultaneously until a second chime sounds (approximately 2 seconds) and then release the buttons.

The CMTC operates only when the ignition is on. The following functions are available using the STEP button:

- Compass and outside temperature
- Average fuel economy (AVE ECO)
- Distance to Empty (DTE)
- Trip Odometer (ODO)
- Elapsed ignition time (ET)
- Display Off

COMPASS/MINI-TRIP COMPUTER VF DISPLAY MESSAGES

The CMTC will not display information for any of the screens for which it did not receive the proper PCI bus data. Refer to the symptom list in the Diagnostic section in this manual for problems related to the CMTC.

The CMTC receives the following messages from Body Control Module (BCM):

- Verification of US/Metric status
- VF display dimming brightness and exterior lamp status
- Trip Odometer data
- Elapsed Ignition On Time data
- Fuel Economy
- Distance to Empty
- Outside Temperature

The CMTC transmits the following messages to the BCM:

- Status Request: Beep, Reset, US/M Toggle
- Current Display
- Compass Heading

The CMTC receives the following message from PCM:

- Vehicle Speed

SETTING MAGNETIC ZONE VARIANCE

Variance is the difference between magnetic North and geographic North. For proper compass function, the correct variance zone must be set. Refer to the Zone Variance map for the correct zone. Follow these steps to check or change the variance zone:

- The ignition switch must be in the On position and the CMTC display must not be blank.
- Press and hold the STEP and US/M buttons until VAR is displayed. The CMTC will display the last variance zone stored in memory and the word VAR.
- Use the STEP button to select the proper variance zone number, 1 through 15.
- After selecting the proper zone number, simultaneously press the STEP and US/M buttons or wait approximately 15 seconds. The variance zone is then stored in the memory and the CMTC returns to normal operation.

COMPASS CALIBRATION

The compass module has 2 types of auto-calibration; slow-cal and fast-cal. Slow-cal ensures that during normal vehicle operation the compass performs auto-calibration functions to keep the compass sensors in their proper operating range. Whenever the ignition is On and the CMTC receives PCI bus data indicating that engine RPM is greater than zero, auto-calibration is performed continuously.

If the calibration information stored in the compass module memory is not within the normal range after a power-up cycle, the compass will display CAL. The CMTC with enter into the fast-cal mode until calibration is complete.

To enter the compass into Manual Calibration mode, perform the following steps:

- Drive the vehicle to an area away from any large metal objects or overhead power lines.
- Ensure that the proper variance zone is selected. See “Setting Magnetic Zone Variance.”
- The ignition switch must be in the On position and the CMTC display must not be blank.
- Press the STEP button and scroll to the Compass/ Temperature display.
- Press and hold the STEP and US/M buttons simultaneously until CAL begins flashing and then release the buttons.
- CAL is displayed without flashing.
- Drive slowly, less than 4 MPH (8KPH) in 3 complete 360 degree circles.
- CAL will remain illuminated to alert the driver that the compass is in the calibration mode.
- After calibration is complete, CAL will turn off.

If the compass appears unable to be calibrated or the compass displays false indications, the vehicle may need to be demagnetized.

AMBIENT TEMPERATURE SENSOR

DESCRIPTION

The ambient air temperature is monitored by the PCM and displayed by the CMTC. The PCM receives a hardwire input from the ambient temperature sensor (ATS). The ATS is located on the inside of the front bumper beam.

The ATS cannot be adjusted or repaired and, if faulty or damaged, it must be replaced.

OPERATION

The ATS is a variable resistor that operates on a 5-volt reference signal circuit hardwired from the PCM. The resistance in the ATS changes as the outside temperature rises or falls. The PCM senses the change in reference voltage through the ATS resistor. Based on the resistance of the ATS, the PCM is programmed to correspond to a specific temperature. The PCM then transmits the proper ambient temperature to the BCM. The BCM filters the ambient temperature data and transmits this data to the CMTC.

DIAGNOSIS AND TESTING

SELF-CHECK DIAGNOSTICS

The CMTC is capable of performing a diagnostic self check on its internal functions. CMTC diagnostics may be performed using a DRBIII® or by using the following procedure:

1. With the ignition switch in the OFF position, depress and hold the STEP and the US/M buttons.
2. Turn the ignition switch to the On position and release the buttons.
3. All of the VFD segments will illuminate for 2-4 seconds. Check for segments that do not illuminate or illuminate all the time.
4. When the self-check is complete the CMTC will display one of the following five messages:

- F (FAIL)
- P (PASS)
- Bus (No PCI bus communication)
- Bus 1 (No PCM bus messages received)
- Bus 2 (No BCM bus messages received)

5. To exit the self-check mode, depress the STEP button or cycle the ignition switch and the CTM will return to normal operation.

If a Bus fault is displayed, refer to the symptom list. If an F is displayed, the CMTC must be replaced. The CMTC will not display an F for a VF segment that does not illuminate.

AMBIENT TEMPERATURE SENSOR

The outside temperature function is supported by the ambient temperature sensor (ATS), a signal and ground circuit hardwired to the PCM, the BCM, and the CMTC display.

If the CMTC display indicates 60°C (140°F) or the ATS sense circuit is shorted to ground, the temp display will be 60°C (140°F) to indicate a SHORT circuit condition.

If the CTM display indicates -45°C (-49°F) or the ATS sense circuit is open, the temp display will be -45°C (-49°F) to indicate an OPEN circuit condition.

If there is an OPEN or SHORT circuit condition, it must be repaired before the CMTC VFD can be tested.

The ATS is supported by the PCM. ATS fault DTC's will be recorded in the PCM. The ATS can be diagnosed using the following Sensor Test. Test the ATS circuits using the diagnostics in the Body Diagnostic Procedures Manual. If the ATS, the circuits, and PCI bus communications are confirmed to be OK, but the CMTC temperature display is inoperative or incorrect, replace the CMTC.

AMBIENT TEMPERATURE SENSOR TEST

1. Turn the ignition OFF.
2. Disconnect the ATS harness connector.
3. Measure the resistance of the ATS using the following min/max values:

- 0°C (32°F) Sensor Resistance = 29.33 – 35.99 Kilohms
- 10°C (50°F) Sensor Resistance = 17.99 – 21.81 Kilohms
- 20°C (68°F) Sensor Resistance = 11.37 – 13.61 Kilohms
- 25°C (77°F) Sensor Resistance = 9.12 – 10.86 Kilohms
- 30°C (86°F) Sensor Resistance = 7.37 – 8.75 Kilohms
- 40°C (104°F) Sensor Resistance = 4.90 – 5.75 Kilohms

The sensor resistance should read between these min/max values. If the resistance values are no OK, replace the Sensor.

3.6 DOOR AJAR SYSTEM

The door ajar and decklid ajar states are used as inputs for the Body Control Module (BCM). The BCM uses these inputs to determine exactly what position the doors and decklid are in. The DRBIII® will display the state of the door ajar and the decklid ajar switches in Inputs/Outputs. It's important to note, that when any door, or the decklid is closed, the switch state on the DRBIII® will show OPEN. When any door, or the decklid is open the switch state on the DRBIII® will show CLOSED. During diagnosis, if a door or the decklid is closed and the DRBIII® displays the switch state as CLOSED, it indicates a shorted ajar circuit. If the door or the decklid is open and the DRBIII® displays the switch state as OPEN, it indicates an open ajar circuit.

3.7 ELECTRICALLY HEATED SYSTEMS

3.7.1 HEATED SEAT RELAY

The Heated Seat System supply voltage is controlled through the Heated Seat Relay located in the Power Distribution Center (PDC). The relay coil is controlled by the Body Control Module (BCM) and is energized whenever the ignition key is in the on position. If low battery voltage is sensed by the Powertrain Control Module, a PCI bus message will be sent to the BCM to turn off the Heated Seat Relay.

3.7.2 REAR WINDOW DEFOGGER

The Body Control Module (BCM) controls the operation of the Rear Defogger Relay located in the Junction Block. The BCM will energize the relay when it receives a request from the HVAC control head (PCI bus message for Automatic Temperature Control or a MUX input for Manual Temp Control).

With the relay activated, it will supply battery voltage to the rear window defogger grid along with heat mirrors if so equipped.

3.8 EXTERIOR LIGHTING SYSTEM

3.8.1 HEADLAMP DELAY

The headlamp time delay operates when the ignition switch is turned off while the headlamps are still on, and the headlamps are then turned off within 45 seconds after the ignition is off. This will provide a 90-second time delay before turning off the headlamps.

3.9 HEATING AND A/C SYSTEM

3.9.1 SYSTEM AVAILABILITY

- Depending on the model, either a Manual Temperature Control (MTC) or Automatic Temperature (ATC) HVAC system is available in these vehicles.

3.9.2 SYSTEM CONTROLS

3.9.2.1 MANUAL TEMPERATURE CONTROL (MTC)

The Manual Temperature Control (MTC):

- controls blower motor operation, providing four blower speeds (Low, M1, M2, & High).
- interfaces with the BCM through hardwired circuits.
- provides temperature setting information to the BCM through a resistor.
- provides an A/C request, an EBL request, and mode switch setting information to the BCM through a resistive multiplexed circuit.

The Body Control Module (BCM):

- drives the EBL status indicator in the MTC. Refer to the Service Manual for additional information about rear window defogger operation.
- drives the electric door actuators (mode, blend, recirc).
- sends and A/C request, over the PCI Bus, to the PCM when A/C operation is desired.
- uses Evaporator Temperature Sensor data to prevent evaporator freeze up while maintaining optimum cooling performance.

The MTC HVAC system uses:

- one, five-wire electric blend door actuator.
- one, five-wire electric mode door actuator.
- one, two-wire electric recirculation door actuator.

3.9.2.2 AUTOMATIC TEMPERATURE CONTROL (ATC)

The Automatic Temperature Control (ATC):

- is addressable with the DRBIII®
- communicates over the Programmable Communication Interface Multiplex System (PCI) Bus.
- can be operated in a manual mode.
- uses an integral-mounted aspirator motor and in-car temperature sensor to maintain occupant comfort levels when set in an automatic mode.
- provides a request over the PCI Bus to the BCM when door actuator (blend, mode, recirculation) operation is desired.
- provides a request over the PCI Bus to the BCM when A/C operation is desired.
- provides a request over the PCI Bus to the BCM when EBL operation is desired.
- provides desired blower motor operating speed data over the PCI Bus to the BCM.

The Body Control Module (BCM):

- drives the ATC status indicators (EBL, A/C, and Recirc) over the PCI Bus.
- remembers the last temperature setting at power down.
- sets the initial temperature setting via the PCI Bus when the ATC is powered up.
- drives the electric door actuators (mode, blend, recirculation).
- controls blower motor operating speed.
  - There are 14 blower speeds when the ATC is in manual mode and infinite speeds when the ATC is in automatic mode.
- monitors the blower motor for a stall condition via a blower speed sense circuit.
- sends a request over the PCI Bus to the PCM when A/C operation is desired.
- uses sun load sensor data to maintain occupant comfort levels when the ATC is set in an automatic mode.
- uses Evaporator Temperature Sensor data to prevent evaporator freeze up while maintaining optimum cooling performance.

Blower Motor Operation

- The Blower Power Module provides the blower motor with power and a path to ground. It also sends a blower control signal to the BCM. The BCM constantly receives desired blower speed data from the ATC over the PCI Bus. Using this data, the BCM processes the blower control signal which sets the speed that the Blower Power Module will run the blower motor.

The ATC HVAC system uses:

- one, five-wire electric blend door actuator
- one, five-wire electric mode door actuator
- one, two-wire electric recirculation door actuator.

3.9.3 SYSTEM REVISIONS (ATC & MTC)

- The 2004 JR Manual Temperature Control (MTC) HVAC system remains carryover from 2003.

- The Automatic Temperature Control (ATC) HVAC system is new for 2004 JR. The ATC system is similar to that used in LH vehicles.

3.9.4 SYSTEM DIAGNOSTICS (ATC & MTC)

Fault detection is through stored Diagnostic Trouble Codes (DTCs)

- DTCs are displayed by the DRBIII®.
- All ATC and MTC DTCs are stored in the BCM. Diagnostics for these DTCs can be found in the Heating & A/C category of this manual.
- DTCs pertaining to A/C compressor control circuits and the radiator fan control circuits are stored in the PCM. Diagnostics for these DTCs can be found in the Powertrain Diagnostic Procedures manual. Diagnostics for symptoms pertaining to A/C compressor operation can also be found in the Powertrain Diagnostics Procedures manual.

3.9.5 FOLLOWING A REPAIR (ATC & MTC)

Calibrate HVAC Door Actuators

- The electric door actuators (blend, mode, recirculation) must be calibrated after making any repairs to the HVAC system.
  - ◆ To calibrate the door actuators, either disconnect the battery or remove JB Fuse #5 for five minutes, or using the DRBIII®, select Body, Body Computer, Miscellaneous, and Calibrate HVAC Door Motors.

3.10 INTERIOR LIGHTING

3.10.1 COURTESY LAMP CONTROL

The body controller has direct control over the majority of the vehicle's courtesy lamps. The body computer will illuminate the courtesy lamps under any of the following conditions:

1. Any door is ajar.
2. The courtesy lamp switch on the instrument panel is closed.
3. A Remote Keyless entry unlock message is received. If the interior lamps are left on after the ignition is turned off, the BCM will turn them off after 15 minutes or until either the dome lamp switch or door ajar switch changes state.

3.10.2 ILLUMINATED ENTRY

Illuminated entry will be initiated when the customer enters the vehicle by unlocking the doors with the key fob, or with the key if the vehicle is equipped with vehicle theft alarm. Upon exiting the vehicle, if the lock button is pressed with a door open, illuminated entry will cancel when the door closes. If the doors are closed and the ignition switch is turned on, the illuminated entry also cancels.

3.11 MECHANICAL INSTRUMENT CLUSTER

The Mechanical Instrument Cluster (MIC) is divided into 4 sections. Primary gauges (Speedometer and Tachometer), secondary gauges (Fuel Level, Engine Coolant Temperature), PCI bus enabled indicator lamps and hardwired enabled indicator lamps.

The gauge mechanisms function in the same way. The main differences are in the face and size of the gauge.

The Oil Pressure, Brake Warning, Turn Signal and Fog Lamp indicators are directly wired to the circuits that they are indicators for. These indicators are located in, but not controlled by, the MIC and are not part of any MIC self test or diagnostic. All indicators are replaceable bulbs or LEDs.

The PCM sends a gauge position message to the BCM through the PCI bus. The MIC receives this message from the BCM, translates it, and positions the gauges. The BCM also sends messages to the MIC to actuate all PCI controlled indicators. These messages are received when the Ignition Switch is in the RUN or START position.

When the ignition Switch is turned to the RUN position, a bulb-check is performed. This consists of activating the PCI bus controlled indicators for approximately 2 to 4 seconds. By holding the TRIP/RESET button in while turning the Ignition Switch to the RUN position, you can activate the MIC Self Test.

The Following indicators are controlled by PCI bus messages:

- Malfunction Indicator Lamp
- Charging System Warning Indicator
- Engine Coolant Temperature Indicator
- Cruise Engaged Indicator
- Airbag Warning Indicator
- Low Fuel Indicator
- ABS Warning Indicator
- High Beam Indicator
- Traction Control Indicator

The following indicators are hardwired and not controlled by PCI bus messages:

- Seat Belt Indicator
- Oil Pressure Indicator
- Brake Warning Indicator

- VTSS Indicator
- Turn Signal Indicators
- Fog Lamp Indicators
- Traction Control Switch

3.12 POWER DOOR LOCK SYSTEM

The door lock switches provide a variable amount of voltage through the multiplexed (MUX) circuit to the BCM. Depending upon that input and various conditions that must be met (i.e. door lock inhibit, etc.), the BCM will determine the action to be taken and activate the proper relay for approximately 250 to 350 msec. If the vehicle is equipped with the vehicle theft security system it will have the central locking feature which locks and unlocks all doors from the cylinder lock switch. This switch is on a separate multiplexed circuit to the BCM and has trouble codes relating to it.

RKE Remote Keyless Entry- This feature allows locking and unlocking of the vehicle door(s) by remote control using a hand-held transmitter (sometimes referred to as a fob) to activate a radio receiver (RKE module). This module plugs into the body control module which is directly connected to the junction block. With this feature RKE can now be added to a non-equipped vehicle by installing a module. If the vehicle is equipped with the vehicle theft security system, RKE will also arm and disarm that system. A 4-button transmitter is used which provides lock, unlock, decklid release and panic features. Decklid release is only operable while the vehicle is in the park position. The module is capable of retaining up to 4 transmitter codes. Rolling code, which increases security, is also included in this system. If the transmitter goes out of synchronization it is easily put back in by pressing the lock button when the transmitter is within range. An external antenna has been added which plugs into the module to provide greater range. RKE will also turn on the interior lamps when a valid unlock command is received and will extinguish the interior lamps when a lock command is received and all doors are closed.

Door Lock Inhibit- When the key is in the ignition and the driver front door is open, all door lock switches are disabled. The unlock switches are still functional. This protects against locking the vehicle with the keys still in the ignition.

Automatic (rolling) Door Locks - This feature can be enabled or disabled by using either the DRBIII® or the customer programmable method. When enabled, all doors will lock when the vehicle reaches a speed of 15 mph (24 kmh) and all doors are closed. If a door is opened and the vehicle slows to below 15 mph (24 kmh), the locks will operate again once all doors are closed and the speed is above 15 mph (24 kmh). This feature is not available in European markets.

Decklid Release - Decklid release is a function of the body control module. Trouble codes are provided to assist in the diagnosis of this system.

Customer programmable features are: Horn chirp, one or two press decklid release, programming a new transmitter (using a previously programmed transmitter), rolling door locks, unlock on exit, and RKE lamp flash.

3.13 POWER CONVERTIBLE TOP

3.13.1 TOP CONTROL

The body control module controls all the functions of the convertible top. The body control module supplies a multiplexed voltage of approximately 90% of ignition voltage to the power top switch. Through a series of resistors the power top switch switches the circuit to ground depending on the position of the switch. The BCM then supplies the ground path for the up or down relay as requested. The power top switch has a 4.7K-ohm diagnostic resistor that allows the BCM to detect a possible open circuit.

3.13.2 WINDOW DROP RELAY ASSEMBLY

The convertible has a feature that allows the operator to lower all four windows and lower the top at the same time. This is accomplished by pressing the power top switch to the second detent. Through the multiplexed circuit of the power top switch the BCM will supply the ground for the window drop relay assembly.

The window drop relay assembly is comprised of four separate relays that are in series with the power window circuits. The relay assembly is located in the driver door.

3.14 VEHICLE COMMUNICATION

The Programmable Communication Interface or PCI Bus is a single wire multiplexed network capable of supporting binary encoded messages shared between multiple modules. The PCI bus circuit is identified as D25. The modules are wired in parallel. Connections are made through the BCM. The BCM acts as a splice to connect each module and the Data Link Connector (DLC) together. The following modules are used on JR:

- Airbag Control Module or referred to as the Occupant Restraint Controller (ORC)
- Automatic Temperature Control Module
- Controller Antilock Brake

- Powertrain Control Module
- Radio (if equipped)
- CD Changer (if equipped)
- Compass/Mini-Trip Computer (if equipped)
- Body Control Module
- Sentry Key Immobilizer Module
- Transmission Control Module
- Mechanical Instrument Cluster

Each module provides its own bias and termination in order to transmit and receive messages. The bus voltage is at zero volts when no modules are transmitting and is pulled up to about seven and a half volts when modules are transmitting.

The bus messages are transmitted at a rate averaging 10800 bits per second. Since there is only voltage present when the modules transmit and the message length is only about 500 milliseconds, it is ineffective to try and measure the bus activity with a conventional voltmeter. The preferred method is to use the DRBIII® lab scope. The 12v square wave selection on the 20-volt scale provides a good view of the bus activity. Voltage on the bus should pulse between zero and about seven and a half volts. Refer to the following figure for some typical displays.

The PCI Bus failure modes are broken down into two categories. Complete PCI Bus Communication Failure and individual module no response. Causes of a complete PCI Bus Communication Failure include a short to ground or battery on the PCI circuit. Individual module no response can be caused by an open circuit at the BCM or at the module, or an open battery or ground circuit to the affected module.

Symptoms of a complete PCI Bus Communication Failure would include but are not limited to:

- All gauges on the MIC stay at zero
- All telltales on MIC illuminate
- MIC backlighting at full intensity
- No response received from any module on the PCI bus (except PCM)
- No start (if equipped with Sentry Key Immobilizer)

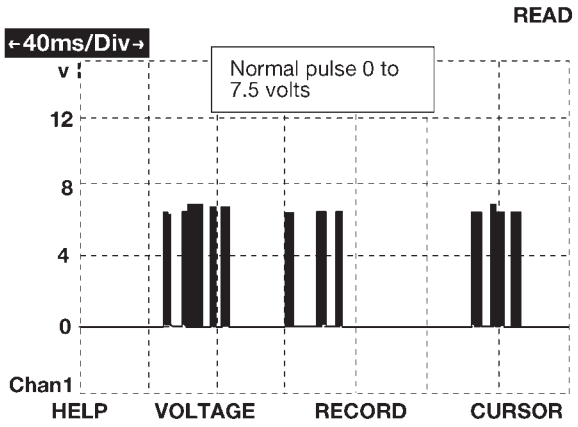
Symptoms of Individual module failure could include any one or more of the above. The difference would be that at least one or more modules would respond to the DRBIII®.

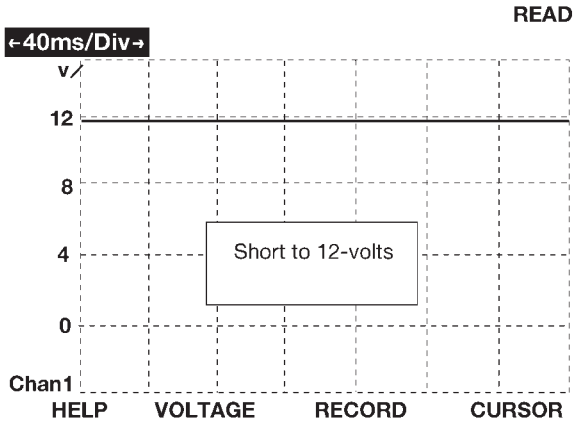
Diagnosis starts with symptom identification. If a complete PCI Bus Communication Failure is suspected, begin by identifying which modules the vehicle is equipped with and then attempt to get a response from the modules with the DRBIII®. If any modules are responding, the failure is not related to the total bus, but can be caused by one or more modules PCI circuit or power supply and ground circuits. The DRBIII® may display "BUS ± SIGNALS OPEN" OR "NO RESPONSE" to indicate a communication problem. These same messages will be displayed if the vehicle is not equipped with that particular module. The CCD error message is a default message used by the DRBIII® and in no way indicates whether or not the PCI bus is operational. The message is only an indication that a module is either not responding or the vehicle is not equipped.

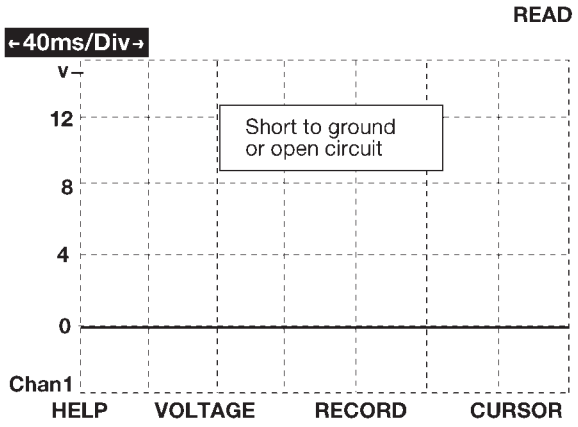
NOTE: Communication over the bus is essential to the proper operation of the vehicles on-board diagnostic systems and the DRBIII®. Problems with the operation of the bus or DRBIII® must be corrected before proceeding with diagnostic testing. If there is a problem, refer to the Communications category of this manual.

NOTE: For 2004 model year, some vehicles will integrate the Transmission Control Module and Powertrain Control Module into a single control module. This new module is the Next Generation Controller for DaimlerChrysler and will be referred to as the Powertrain Control Module (PCM). The Transmission Control System is part of the Powertrain Control Module.

Diagnostic procedures and DTC numbers are some of the changes you will see which reflect the new combined module technology. The PCM will have four color coded connectors C1 through C4, (C1-BLK, C2-ORANGE, C3-WHITE, C4-GREEN), each PCM connector will have 38 pins each. Two new tools are used for probing and repairing the New PCM connectors. A New tool to release the pins from the PCM connectors Miller #3638 is introduced, you must use the Miller tool #3638 to release the connector pins or harness and connector damage will occur. Also a New tool for probing connectors Miller #8815 is introduced, you must use the Miller tool #8815 to probe the PCM pins or harness and connector damage will occur. There is also a new Verification test and module replacement procedure for the new PCM.







80bdbcf6

3.14.1 BUS FAILURE MESSAGE

Odometer Displays "No Bus" - The Mechanical Instrument Cluster (MIC) cannot communicate over the bus and does not know why.

3.15 VEHICLE THEFT SECURITY SYSTEM

This passive system is designed to protect against vehicle theft. The vehicle theft security system (VTSS) is part of the body control module (BCM), which monitors vehicle doors and the ignition for unauthorized operation. The alarm activates by sounding the horn, flashing the headlamps, courtesy lamps, and the VTSS indicator lamp. Passive arming occurs upon normal vehicle exit by turning the ignition off, opening the driver's door, locking the doors with the power lock, and closing the driver's door or locking the doors with RKE. Manual arming occurs by using the key to lock the doors after closing them. The indicator lamp in the instrument cluster will flash for 15 seconds, showing that arming is in progress. If no monitored systems are activated during this period, the system will arm and the indicator will flash at a slow rate. If the indicator lamp remains steadily lit during the arming process, this can indicate a loss of decklid cylinder lock switch. When something triggers the alarm, the system will signal the headlamps, courtesy lamps, and horn for about 3 minutes, then headlamps for an additional 15 minutes if the offending input is still present.

For complaints about the Theft Alarm going off on its own use the DRBIII® and select "Body Computer" then "Input/Output Display" and read the "Last VTSS Cause" status.

Tamper Alert - The VTSS indicator lamp will flash twice quickly and the horn will chirp three times when the system is disarmed to indicate a tamper condition has occurred.

Manual Override - The system will not arm if the doors are locked using the manual lock control (by hand) or if the locks are actuated by an inside occupant after the door is closed.

To verify the system, proceed as follows:

1. Open the driver's door.
2. Remove the ignition key (but keep it in hand).
3. Lock the doors with the power lock switch or the RKE.
4. Close the driver's door.

NOTE: After the doors are closed, locking the doors with RKE will also arm the system.

NOTE: If the VTSS indicator lamp flashed, the system is operational and verified. If not, there may be a problem with the system.

Arming/Disarming- Active arming occurs when the remote keyless entry transmitter is used to lock the vehicle doors, whether the doors are open or closed. If one or more doors are open the arming sequence is completed only after all doors are closed.

Passive disarming occurs upon normal vehicle entry (unlocking front door with the key). This disarming also will halt the alarm once it has been activated.

Active disarming occurs when the remote keyless entry transmitter is used to unlock the vehicle doors. This disarming also will halt the alarm once it has been activated.

NOTE: A Powertrain Control Module from a vehicle equipped with a vehicle theft security system cannot be used in a vehicle that is not equipped with a vehicle theft security system. If the VTSS indicator lamp comes on after ignition ON and stays on, the PCI bus communication with the Powertrain Control Module possibly has been lost.

3.16 WIPER SYSTEM

The wiper system provides the driver with the normal wiper (low and high speeds), intermittent wipe, and wipe after wash. The driver selects the wiper function via the resistive multiplexed stalk switch mounted on the steering column. The BCM uses the input signal from the wiper stalk switch, wiper motor park switch, and the washer switch to control the wiper system. The Body Control Module (BCM) then controls the relays and timing functions to provide the driver selected features.

3.16.1 SYSTEM FEATURES

Speed Sensitive Intermittent Wipe Mode

There are 6 individual delay times with a minimum delay of 1/2 second to a maximum of 18 seconds. When the vehicle speed is under 10 MPH (16 KMH), the delay time is doubled providing a range of 1 second to 36 seconds.

Park after Ignition Off

Because the wiper relays are powered from the battery the BCM can run the wipers to park after the ignition is turned off.

Wipe after Wash

When the driver presses the wash button for over 1/2 second and then releases it, the wiper will continue to run for 2 additional wipe cycles.

The wiper system utilizes the BCM to control the on/off and hi/low relays from low and hi speed wiper functions, intermittent wiper delay as the switch position changes, pulse wipe, wipe after wash mode, and wiper motor park functions. The BCM uses the vehicle speed input to double the usual delay time below 10 MPH (16 KMH).

3.17 USING THE DRBIII®

Refer to the DRBIII® user's guide for instructions and assistance with reading DTC's, erasing DTC's, and other DRBIII® functions.

3.18 DRBIII® ERROR MESSAGES

Under normal operation, the DRBIII® will display one of only two error messages: user-requested WARM Boot or User-Requested COLD Boot. If the DRBIII® should display any other error message, record the entire display and call the Star Center. This is a sample of such an error message display:

```
ver: 2.14
date: 26 Jul93
file: key_itf.cc
date: Jul 26 1993
line: 548
err: 0x1
User-Requested COLD Boot

Press MORE to switch between this display
  and the application screen.
Press F4 when done noting information.
```

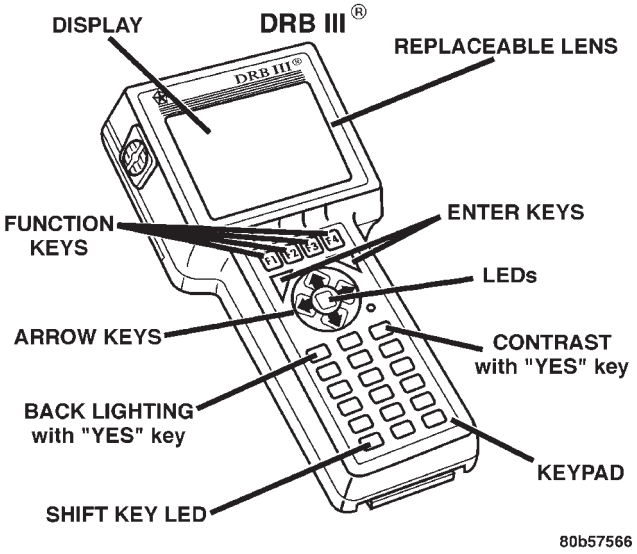
3.19 DRBIII® DOES NOT POWER UP (BLANK SCREEN)

If the LED's do not light or no sound is emitted at start up, check for loose cable connections or a bad cable. Check the vehicle battery voltage (data link connector cavity 16). A minimum of 11 volts is required to adequately power the DRBIII®. Check for proper grounds at DLC cavities 4 and 5.

If all connections are proper between theDRBIII® and the vehicle or other devices, and the vehicle battery is fully charged, and inoperative DRBIII® may be the result of faulty cable or vehicle wiring.

3.20 DISPLAY IS NOT VISIBLE

Low temperatures will affect the visibility of the display. Adjust the contrast to compensate for this condition.



4.0 DISCLAIMERS, SAFETY, WARNINGS

4.1 DISCLAIMERS

All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

4.2 SAFETY

4.2.1 TECHNICIAN SAFETY INFORMATION

WARNING: WHEN OPERATING, ENGINES PRODUCE AN ODORLESS GAS CALLED CARBON MONOXIDE. INHALING CARBON MONOXIDE GAS CAN RESULT IN SLOWER REACTION TIMES AND CAN LEAD TO PERSONAL INJURY OR DEATH. WHEN THE ENGINE IS OPERATING, KEEP SERVICE AREAS WELL VENTILATED OR ATTACH THE VEHICLE EXHAUST SYSTEM TO THE SHOP EXHAUST REMOVAL SYSTEM.

Set the parking brake and block the wheels before testing or repairing the vehicle. It is especially important to block the wheels on front-wheel drive vehicles; the parking brake does not hold the drive wheels.

When servicing a vehicle, always wear eye protection, and remove any metal jewelry such as watchbands or bracelets that might make an inadvertent electrical contact.

When diagnosing a body system problem, it is important to follow approved procedures where applicable. These procedures can be found in this General Information Section or in the service manual procedures. Following these procedures is very important to the safety of individuals performing diagnostic tests.

4.2.2 VEHICLE PREPARATION FOR TESTING

Make sure the vehicle being tested has a fully charged battery. If it does not, false diagnostic codes or error messages may occur.

4.2.3 SERVICING SUB ASSEMBLIES

Some components of the body system are intended to be serviced in assembly only. Attempting to remove or repair certain system sub-components may result in personal injury and/or improper system operation. Only those components with approved repair and installation procedures in the service manual should be serviced.

4.2.4 DRBIII® SAFETY INFORMATION

WARNING: EXCEEDING THE LIMITS OF THE DRBIII® MULTIMETER IS DANGEROUS. READ ALL DRBIII® INSTRUCTIONS BEFORE USING THE MULTIMETER. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN PERSONAL INJURY OR DEATH.

- Follow the vehicle manufacturer's service specifications at all times.
- Do not use the DRBIII® if it has been damaged.
- Do not use the test leads if the insulation is damaged or if metal is exposed.
- To avoid electrical shock, do not touch the test leads, tips, or the circuit being tested.
- Choose the proper range and function for the measurement. Do not try voltage or current measurements that may exceed the rated capacity.
- Do not exceed the limits shown in the table below:

FUNCTION	INPUT LIMIT
Volts	0 - 500 peak volts AC 0 - 500 volts DC
Ohms (resistance)*	0 - 1.12 megohms
Frequency Measured Frequency Generated	0 - 10 kHz
Temperature	-58 - 1100°F -50 - 600°C

* Ohms cannot be measured if voltage is present. Ohms can be measured only in a non-powered circuit.

- Voltage between any terminal and ground must not exceed 500v DC or 500v peak AC.
- Use caution when measuring voltage above 25v DC or 25v AC.
- The circuit being tested must be protected by a 10A fuse or circuit breaker.
- Use the low current shunt to measure circuits up to 10A. Use the high current clamp to measure circuits exceeding 10A.
- When testing for the presence of voltage or current, make sure the meter is functioning correctly. Take a reading of a known voltage or current before accepting a zero reading.
- When measuring current, connect the meter in series with the load.
- Disconnect the live test lead before disconnecting the common test lead.

- When using the meter function, keep the DRBIII® away from spark plug or coil wires to avoid measuring error from outside interference.

4.3 WARNINGS

4.3.1 VEHICLE DAMAGE WARNINGS

Before disconnecting any control module, make sure the ignition is "off". Failure to do so could damage the module.

When testing voltage or continuity at any control module, use the terminal side (not the wire end) of the connector. Do not probe a wire through the insulation; this will damage it and eventually cause it to fail because of corrosion.

Be careful when performing electrical tests so as to prevent accidental shorting of terminals. Such mistakes can damage fuses or components. Also, a second DTC could be set, making diagnosis of the original problem more difficult.

4.3.2 ROAD TEST COMPLAINT VEHICLE

Some complaints will require a test drive as part of the repair verification procedure. The purpose of the test drive is to try to duplicate the diagnostic DTC or symptom condition.

WARNING: REASSEMBLE ALL COMPONENTS BEFORE ROAD TESTING A VEHICLE. DO NOT TRY TO READ THE DRBIII® SCREEN OR OTHER TEST EQUIPMENT DURING A TEST DRIVE. DO NOT HANG THE DRBIII® OR OTHER TEST EQUIPMENT FROM THE REARVIEW MIRROR DURING A TEST DRIVE. HAVE AN ASSISTANT AVAILABLE TO OPERATE THE DRBIII® OR OTHER TEST EQUIPMENT. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN PERSONAL INJURY OR DEATH.

5.0 REQUIRED TOOLS AND EQUIPMENT

DRBIII® (diagnostic read-out box)
Jumper wires
Ohmmeter
Voltmeter
Test Light
8310 Airbag System Load Tool
8443 SRS Airbag System Load Tool

6.0 GLOSSARY OF TERMS

6.1 ACRONYMS

ABS	antilock brake system
ACM	airbag control module
AECM	airbag electronic control module (ACM)
ASDM	airbag system diagnostic module (ACM)
ATC	automatic temperature control
BCM	body control module
CAB	controller antilock brake
CMTC	compass/mini-trip computer
DAB	driver airbag
DLC	data link connector
DTC	diagnostic trouble code
DR	driver
EBL	electric back lite (rear window defogger)
HVAC	heater ventilation, air conditioning
MIC	mechanical instrument cluster
MTC	manual temperature control
NGC	next generation controller
OBD	on board diagnostics
ODO	odometer
ORC	occupant restraint controller (ACM)
PAB	passenger airbag
PASS	passenger
PCI	Programmable Communication Interface (vehicle communication bus)
PCM	powertrain control module
PDC	power distribution center
PWM	pulse width modulated
RKE	remote keyless entry
SAB	seat airbag
SBT	seat belt tensioner
SKIM	sentry key immobilizer module
SKIS	sentry key immobilizer system

SQUIB	also called initiator (located inside airbag)
SRS	supplemental restraint system
TCM	transmission control module
VFD	vacuum fluorescent display
VTSS	vehicle theft security system

NOTES

7.0

DIAGNOSTIC INFORMATION AND PROCEDURES

Symptom List:

ACCELEROMETER 1
INTERNAL 1
INTERNAL 2
INTERNAL 3
INTERNAL 4
OUTPUT DRIVER 1
OUTPUT DRIVER 2
STORED ENERGY FIRING 1

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be ACCELEROMETER 1.

When Monitored and Set Condition:

ACCELEROMETER 1

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

INTERNAL 1

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

INTERNAL 2

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

INTERNAL 3

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

INTERNAL 4

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

ACCELEROMETER 1 — Continued

OUTPUT DRIVER 1

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

OUTPUT DRIVER 2

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

STORED ENERGY FIRING 1

When Monitored: With the ignition on, the module on board diagnostics continuously performs internal circuit tests.

Set Condition: This DTC will set if the module identifies an out of range internal circuit.

POSSIBLE CAUSES
AIRBAG CONTROL MODULE - ACM

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** Select the appropriate module and DTC type combination: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 2 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

Symptom List:

AIRBAG WARNING INDICATOR DRIVER
AIRBAG WARNING INDICATOR OPEN
AIRBAG WARNING INDICATOR SHORT

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be AIRBAG WARNING INDICATOR DRIVER.

When Monitored and Set Condition:

AIRBAG WARNING INDICATOR DRIVER

When Monitored: With ignition on the ACM monitors the PCI Bus for a message from the MIC containing the airbag warning indicator status. The ACM request the warning lamp status from the MIC once every second.

Set Condition: This DTC will set if the ACM receives a bus message indicating that the airbag lamp driver has failed.

AIRBAG WARNING INDICATOR OPEN

When Monitored: With ignition on the ACM monitors the PCI Bus for a message from the MIC containing the airbag warning indicator status. The ACM request the warning lamp status from the MIC once every second.

Set Condition: This DTC will set immediately if the indicator status is OPEN.

AIRBAG WARNING INDICATOR SHORT

When Monitored: With ignition on the ACM monitors the PCI Bus for a message from the MIC containing the airbag warning indicator status. The ACM request the warning lamp status from the MIC once every second.

Set Condition: This DTC will set immediately if the indicator status is SHORT.

POSSIBLE CAUSES
MIC, COMMUNICATION FAILURE
WARNING INDICATOR
ACM, WARNING INDICATOR
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

AIRBAG WARNING INDICATOR DRIVER — Continued

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Ensure the battery is fully charged. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	With the DRBIII®, ensure PCI Bus communications with the Instrument Cluster. Is the Instrument Cluster communicating on the PCI Bus? Yes → Go To 3 No → Refer to category COMMUNICATION CATEGORY and select the related symptom NO RESPONSE or INSTRUMENT CLUSTER BUS +/- SIGNAL OPEN.	All
3	With the DRBIII® select PASSIVE RESTRAINTS, AIRBAG and MONITOR DISPLAY. Using the DRBIII®, read the WARNING LAMP MONITOR screen. Select the LAMP STATUS displayed on the DRB monitors screen. Observe the Lamp Driver State and Actual Lamp State. Is the LAMP DRIVER and ACTUAL LAMP STATE: OK? YES Go To 4 NO Replace Instrument Cluster. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

AIRBAG WARNING INDICATOR DRIVER — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
CALIBRATION MISMATCH

When Monitored and Set Condition:

CALIBRATION MISMATCH

When Monitored: With ignition on, the ACM monitors the PCI Bus for the VIN message containing the body style. Note: The VIN message should match the vehicle VIN plate.

Set Condition: If the Body style stored in ACM does not exactly match the vehicle body style indicated by the PCM for 2 consecutive VIN messages, then the fault shall be set.

POSSIBLE CAUSES
PCM, PCI COMMUNICATION FAILURE
PCM VEHICLE IDENTIFICATION NUMBERS INCORRECT OR MISSING
ACM CALIBRATION MISMATCH
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** Connect the DRB to the data link connector and select PASSIVE RESTRAINTS, AIRBAG, SYSTEM TEST. With the DRBIII®, read the system test. Does the DRB show PCM Active on the Bus:? Yes → Go To 3 No → Refer to category COMMUNICATION CATEGORY and select the related symptom. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

CALIBRATION MISMATCH — Continued

TEST	ACTION	APPLICABILITY
3	With the DRB select ENGINE MISCELLANEOUS, select MISC FUNCTION, and then CHECK VIN to read the Vehicle Identification Number in the Powertrain Control Module. Compare the VIN displayed on the DRB screen and the Vehicle VIN plate. Does the VIN plate and the PCM VIN match? Yes → Go To 4 No → Replace the Powertrain Control Module and program with the correct vehicle identification number. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
CLUSTER MESSAGE MISMATCH

When Monitored and Set Condition:

CLUSTER MESSAGE MISMATCH

When Monitored: After the MIC bulb test is completed, the ACM compares the Lamp Request by ACM, On or Off, and the Lamp on by MIC, On or Off, PCI Bus messages. Each message is transmitted one time per second or when a change in the lamp state occur.

Set Condition: If the Lamp Request by ACM, On or Off, and the Lamp on by MIC, On or Off, messages do not match, the code will set.

POSSIBLE CAUSES
MIC DIAGNOSTIC CODES
CLUSTER MESSAGE MISMATCH
STORED CODE OR INTERMITTENT CONDITION
ACM, CLUSTER MESSAGE MISMATCH
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Ensure the battery is fully charged. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn the ignition on. With the DRBIII®, read the MIC DTCs. Does the DRBIII® display any active Diagnostic Codes? Yes → Refer to symptom list for problems related to Instrument Cluster. No → Go To 3	All

CLUSTER MESSAGE MISMATCH — Continued

TEST	ACTION	APPLICABILITY
3	With the DRBIII® select PASSIVE RESTRAINTS, AIRBAG, MONITOR DISPLAY and WARNING LAMP STATUS. Cycle the ignition key and observe the LAMP ON BY MIC and LAMP REQ BY ACM monitors after the 6 to 8 second indicator test. Does the LAMP ON BY MIC and LAMP REQ BY ACM monitors match? YES Go To 4 NO Replace Mechanical Instrument Cluster. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER CURTAIN SQUIB CIRCUIT OPEN

When Monitored and Set Condition:

DRIVER CURTAIN SQUIB CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Curtain Squib circuits.

Set Condition: When the ACM detects an open circuit or high resistance on the Curtain Squib circuits.

POSSIBLE CAUSES
DRIVER CURTAIN AIRBAG CIRCUIT OPEN
DRIVER CURTAIN SQUIB LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, DRIVER CURTAIN SQUIB CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure that the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER CURTAIN SQUIB CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Curtain Airbag connector(s). **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Curtain Airbag connector(s). **WARNING: TURN IGNITION ON, THEN RECONNECT THE BATTERY.** **NOTE: Check connectors - Clean and repair as necessary.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® show DRIVER CURTAIN SQUIB CIRCUIT OPEN? Yes → Go To 3 No → Replace Driver Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Load Tool from the Driver Curtain Airbag connector(s). Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adapter to the Airbag Control Module connector(s). Measure the resistance of the Curtain Squib Line 1 and Line 2 circuits between the Load Tool ACM adaptor and the Curtain Airbag connector. Is the resistance below 1.0 ohms on both circuits? Yes → Replace the Airbag Control Module in accordance with the Service information. WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Repair open or high resistance in the Driver Curtain Squib Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER CURTAIN SQUIB CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER CURTAIN SQUIB CIRCUIT SHORT

When Monitored and Set Condition:

DRIVER CURTAIN SQUIB CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance between the Driver Curtain Squib circuits.

Set Condition: When the ACM detects a low resistance between the Driver Curtain Squib circuits.

POSSIBLE CAUSES
DRIVER CURTAIN AIRBAG CIRCUIT SHORT
DRIVER CURTAIN SQUIB LINE 1 SHORT TO LINE 2
ACM, DRIVER CURTAIN SQUIB CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure that the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER CURTAIN SQUIB CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Curtain Airbag connector(s). **NOTE: Check connectors - Clean repair as necessary.** **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Curtain Airbag connector(s). **WARNING: TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® show DRIVER CURTAIN SQUIB CIRCUIT SHORT? Yes → Go To 3 No → Replace Driver Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Load Tool from the Driver Curtain Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adapter to the ACM connector(s). Measure the resistance between the Driver Curtain Squib Line 1 and Line 2 circuits at the Driver Curtain Airbag connector. Is the resistance below 10K ohms? Yes → Repair Driver Curtain Squib Line 1 shorted to Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with Service Information. WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER CURTAIN SQUIB CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER CURTAIN SQUIB SHORT TO BATTERY

When Monitored and Set Condition:

DRIVER CURTAIN SQUIB SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage of the Driver Curtain Squib circuits.

Set Condition: When the ACM detects voltage on the Curtain Squib circuits.

POSSIBLE CAUSES
DRIVER CURTAIN SQUIB SHORT TO BATTERY
DRIVER CURTAIN SQUIB LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, DRIVER CURTAIN SQUIB SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure that the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Curtain Airbag connector(s). **NOTE: Check connectors - Clean repair as necessary.** **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Curtain Airbag connector(s). **WARNING: TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® show DRIVER CURTAIN SQUIB SHORT TO BATTERY? Yes → Go To 3 No → Replace Driver Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER CURTAIN SQUIB SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Disconnect the Airbag Load Tool from the Driver Curtain Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adapter to the ACM connector. **WARNING: TURN THE IGNITION OFF, THEN RECONNECT THE BATTERY.** Measure the voltage on the Driver Curtain Squib Line 1 and Line 2 circuits between the Driver Curtain Airbag connector and ground. Is there any voltage on either circuit? Yes → Repair Driver Curtain Squib Line 1 or Line 2 circuits short to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with Service Information. WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER CURTAIN SQUIB SHORT TO GROUND

When Monitored and Set Condition:

DRIVER CURTAIN SQUIB SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Curtain Squib circuits.

Set Condition: When the ACM detects a short to ground in either Driver Curtain Squib circuits.

POSSIBLE CAUSES
DRIVER CURTAIN SQUIB SHORT TO GROUND
DRIVER CURTAIN SQUIB LINE 1 OR LINE 2 SHORTED TO GROUND
ACM, DRIVER CURTAIN SQUIB SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure that the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER CURTAIN SQUIB SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Curtain Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Curtain Airbag connector(s). **WARNING: TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® display DRIVER CURTAIN SQUIB SHORT TO GROUND? Yes → Go To 3 No → Replace the Driver Curtain Airbag in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Disconnect the Load Tool from the Driver Curtain Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM adaptor to the ACM connector(s). Measure the resistance of the Driver Curtain Squib Line 1 and Line 2 circuits between the Driver Curtain Airbag connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Driver Curtain Squib Line 1 or Line 2 shorted to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with Service Information. WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER CURTAIN SQUIB SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SEAT BELT TENSIONER CIRCUIT OPEN

When Monitored and Set Condition:

DRIVER SEAT BELT TENSIONER CIRCUIT OPEN

When Monitored: With the ignition on the ACM monitors the resistance of the Driver Seat Belt Tensioner circuits.

Set Condition: The ACM has detected an open circuit or high resistance on the Driver Seat Belt Tensioner circuits.

POSSIBLE CAUSES
DRIVER SEAT BELT TENSIONER CIRCUITS OPEN
DRIVER SEAT BELT TENSIONER LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, DRIVER SEAT BELT TENSIONER CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**NOTE: Ensure the battery is fully charged.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® display DRIVER SBT CIRCUIT OPEN? Yes → Go To 3 No → Replace Driver Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Seat Belt Tensioner connector. Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Driver SBT Line 1 and Line 2 circuits between the Load Tool Adapter and the Driver SBT connector. Is the resistance below 1.0 ohms on both circuit? Yes → Go To 4 No → Repair open or high resistance in Driver Seat Belt Tensioner Line 1 Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT, PERSONAL INJURY OR DEATH, .** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SEAT BELT TENSIONER CIRCUIT SHORT

When Monitored and Set Condition:

DRIVER SEAT BELT TENSIONER CIRCUIT SHORT

When Monitored: With the ignition on the ACM monitors the resistance of the Driver Seat Belt Tensioner circuits

Set Condition: The ACM has detected low resistance in the Driver Seat Belt Tensioner circuits.

POSSIBLE CAUSES
DRIVER SEAT BELT TENSIONER SHORT
DRIVER SEAT BELT TENSIONER LINE 1 SHORT TO LINE 2
ACM, DRIVER SEAT BELT TENSIONER CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® display DRIVER SEAT BELT TENSIONER CIRCUIT SHORT? Yes → Go To 3 No → Replace Driver Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Seat Belt Tensioner connector. Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance between the Driver SBT Line 1 and Line 2 circuit at the Driver SBT connector. Is the resistance below 10K Ohms? Yes → Repair Driver Seat Belt Tensioner Line 1 circuit short to Driver Seat Belt Tensioner Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SEAT BELT TENSIONER SHORT TO BATTERY

When Monitored and Set Condition:

DRIVER SEAT BELT TENSIONER SHORT TO BATTERY

When Monitored: With the ignition on the ACM monitors the voltage of the Driver Seat Belt Tensioner circuits.

Set Condition: The ACM has detected high voltage on the Driver Seat Belt Tensioner circuits.

POSSIBLE CAUSES
DRIVER SEAT BELT TENSIONER SHORT TO BATTERY
DRIVER SBT LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, DRIVER SEAT BELT TENSIONER SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® display DRIVER SEAT BELT TENSIONER SHORT TO BATTERY? Yes → Go To 3 No → Replace Driver Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Seat Belt Tensioner connector. Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Driver SBT Line 1 and Line 2 circuits between the Driver SBT connector and ground. Is there any voltage present? Yes → Repair Driver Seat Belt Tensioner Line 1 or Line 2 circuit short to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SEAT BELT TENSIONER SHORT TO GROUND

When Monitored and Set Condition:

DRIVER SEAT BELT TENSIONER SHORT TO GROUND

When Monitored: With the ignition on the ACM monitors the voltage of the Driver Seat Belt Tensioner circuits.

Set Condition: When the ACM detects a short to ground in either Driver Seat Belt Tensioner circuits.

POSSIBLE CAUSES
DRIVER SEAT BELT TENSIONER SHORT TO GROUND
DRIVER SEAT BELT LINE 1 OR LINE 2 SHORT TO GROUND
ACM, DRIVER SEAT BELT TENSIONER SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® display DRIVER SEAT BELT TENSIONER SHORT TO GROUND? Yes → Go To 3 No → Replace the Driver Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Seat Belt Tensioner connector. Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Driver SBT Line 1 and Line 2 circuits between the Driver SBT connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Driver Seat Belt Tensioner Line 1 or Line 2 circuits short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SEAT BELT TENSIONER SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 1 CIRCUIT OPEN

When Monitored and Set Condition:

DRIVER SQUIB 1 CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 1 circuits.

Set Condition: The ACM detects an open circuit or high resistance in the Driver Squib 1 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 1 CIRCUIT OPEN
CLOCKSPRING SQUIB 1 CIRCUIT OPEN
DRIVER SQUIB 1 LINE 1 OR LINE 2 CIRCUITS OPEN
ACM, DRIVER SQUIB 1 CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 1 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag Squib connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 CIRCUIT OPEN? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 CIRCUIT OPEN? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Driver Squib 1 Line 1 and Line 2 circuits between the ACM Adaptor and the Clockspring connector(s). Is the resistance below 1.0 ohm on both circuits? Yes → Go To 5 No → Repair open or high resistance in the Driver Squib 1 Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SQUIB 1 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 1 CIRCUIT SHORT

When Monitored and Set Condition:

DRIVER SQUIB 1 CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 1 circuits.

Set Condition: The ACM has detected low resistance on the Driver Squib 1 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 1 CIRCUIT SHORT
CLOCKSPRING, DRIVER SQUIB 1 CIRCUITS SHORT
DRIVER AIRBAG SQUIB 1 LINE 1 SHORT TO LINE 2
ACM, DRIVER SQUIB LINE 1 SHORT TO LINE 2
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All

DRIVER SQUIB 1 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 CIRCUIT SHORT? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 CIRCUIT SHORT? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). Measure the resistance between the Driver Squib 1 Line 1 and Line 2 at the Clockspring connector. Is the resistance below 10K ohms? Yes → Repair the Driver Squib 1 Line 1 circuit shorted to Driver Squib 1 Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All

DRIVER SQUIB 1 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 1 SHORT TO BATTERY

When Monitored and Set Condition:

DRIVER SQUIB 1 SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage of the Driver Squib 1 circuits.

Set Condition: The ACM has detected high voltage on the Driver Squib 1 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 1 SHORT TO BATTERY
CLOCKSPRING, DRIVER SQUIB 1 SHORT TO BATTERY
DRIVER SQUIB 1 LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, DRIVER SQUIB 1 SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED ACM DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 1 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag Squib connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 SHORT TO BATTERY? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 SHORT TO BATTERY ? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SQUIB 1 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage on the Driver Squib 1 Line 1 and Line 2 circuits between the Clockspring connector and ground. Is there any voltage present? Yes → Repair the Driver Squib 1 Line 1 or Line 2 circuits shorted to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 1 SHORT TO GROUND

When Monitored and Set Condition:

DRIVER SQUIB 1 SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 1 circuits.

Set Condition: When the ACM detects a short to ground in either Driver Squib 1 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 1 SHORT TO GROUND
CLOCKSPRING, DRIVER SQUIB 1 SHORT TO GROUND
DRIVER SQUIB 1 LINE 1 OR LINE 2 SHORTED TO GROUND
ACM, DRIVER SQUIB 1 SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 1 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag Squib connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 SHORT TO GROUND? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 1 SHORT TO GROUND? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector. Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector. Measure the resistance of the Driver Squib 1 Line 1 and Line 2 circuits between Clockspring connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Driver Squib 1 Line 1 or Line 2 circuits shorted to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All

DRIVER SQUIB 1 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT, PERSONAL INJURY OR DEATH, .** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 2 CIRCUIT OPEN

When Monitored and Set Condition:

DRIVER SQUIB 2 CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 2 circuits.

Set Condition: The ACM detects an open circuit or high resistance in the Driver Squib 2 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 2 CIRCUIT OPEN
CLOCKSPRING, DRIVER SQUIB 2 CIRCUIT OPEN
DRIVER SQUIB 2 LINE 1 OR LINE 2 CIRCUITS OPEN
ACM, DRIVER SQUIB 2 CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 2 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag Squib connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 2 CIRCUIT OPEN? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector. Disconnect the Clockspring connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 2 CIRCUIT OPEN? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s) Measure the resistance of the Driver Squib 2 Line 1 and Line 2 circuits between the ACM Adaptor and the Clockspring connector. Is the resistance below 1.0 ohm on both circuits? Yes → Go To 5 No → Repair open or high resistance in the Driver Squib 2 Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

DRIVER SQUIB 2 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 2 CIRCUIT SHORT

When Monitored and Set Condition:

DRIVER SQUIB 2 CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 2 circuits.

Set Condition: The ACM detects low resistance on the Driver Squib 2 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 2 CIRCUIT SHORT
CLOCKSPRING, DRIVER SQUIB 2 CIRCUIT SHORT
DRIVER SQUIB 2 LINE 1 SHORT TO LINE 2
ACM, DRIVER SQUIB 2 CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 2 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRB show DRIVER SQUIB 2 CIRCUIT SHORT? Yes → Go To 3 No → Replace Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRB show DRIVER SQUIB 2 CIRCUIT SHORT? Yes → Go To 4 No → Replace Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). Measure the resistance between the Driver Squib 2 Line 1 and Line 2 circuits at the Clockspring connector. Is the resistance below 10K ohms? Yes → Repair the Driver Squib 2 Line 1 circuit shorted to Driver Squib 2 Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All

DRIVER SQUIB 2 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 2 SHORT TO BATTERY

When Monitored and Set Condition:

DRIVER SQUIB 2 SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage of the Driver Squib 2 circuits.

Set Condition: The ACM detects high voltage on the Driver Squib 2 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 2 SHORT TO BATTERY
CLOCKSPRING, DRIVER SQUIB 2 SHORT TO BATTERY
DRIVER SQUIB 2 LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, DRIVER SQUIB 2 SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 2 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH,DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Driver Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show DRIVER SQUIB 2 SHORT TO BATTERY? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRB show DRIVER SQUIB 2 SHORT TO BATTERY ? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage on the Driver Squib 2 Line 1 and Line 2 from the Clockspring connector to ground. Is there any voltage present? Yes → Repair the Driver Squib 2 Line 1 or Line 2 circuits shorted to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All

DRIVER SQUIB 2 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
DRIVER SQUIB 2 SHORT TO GROUND

When Monitored and Set Condition:

DRIVER SQUIB 2 SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Driver Squib 2 circuits.

Set Condition: The ACM detects a short to ground in either Driver Squib 2 circuits.

POSSIBLE CAUSES
DRIVER AIRBAG SQUIB 2 SHORT TO GROUND
CLOCKSPRING, DRIVER SQUIB 2 SHORT TO GROUND
DRIVER SQUIB 2 LINE 1 OR LINE 2 SHORT TO GROUND
ACM, DRIVER SQUIB 2 SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 6 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

DRIVER SQUIB 2 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Driver Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH,DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Driver Airbag connectors(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRB show DRIVER SQUIB 2 SHORT TO GROUND? Yes → Go To 3 No → Replace the Driver Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Driver Airbag connector(s). Disconnect the Clockspring connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Clockspring connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRB show DRIVER SQUIB 2 SHORT TO GROUND? Yes → Go To 4 No → Replace the Clockspring in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH,TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Clockspring connector. Disconnect the Airbag Control Module connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector. Measure the resistance of the Driver Squib 2 Line 1 and Line 2 circuits between Clockspring connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Driver Squib 2 Line 1 or Line 2 circuits shorted to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All

DRIVER SQUIB 2 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
LEFT SIDE IMPACT SENSOR 1 INTERNAL 1

When Monitored and Set Condition:

LEFT SIDE IMPACT SENSOR 1 INTERNAL 1

When Monitored: At ignition on, the Left Side Impact Sensor 1 is equipped with onboard diagnostics to monitor the sensors internal circuits. If a problem is identified the sensor sends the Left Side Impact Sensor 1 internal 1 message to the ACM.

Set Condition: The code will set, if the ACM receives an Impact Sensor Internal 1 message from the Left Side Impact Sensor 1.

POSSIBLE CAUSES
ACM, LEFT SIDE IMPACT SENSOR 1
REPAIR IS COMPLETE
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Replace the Left Side Impact Sensor 1. Reconnect the vehicle wire harness to the impact sensor. Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Connect the DRB to the Data Link Connector - use the most current software available. Use the DRB III and erase the stored codes in all airbag system modules. Turn the Ignition Off, and wait 15 seconds before turning the Ignition On. Wait one minute, and read active codes and if there are none present read the stored codes. DID the active Left Side Impact Sensor 1 DTC return? Yes → Go To 3 No → Repair is complete. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

LEFT SIDE IMPACT SENSOR 1 INTERNAL 1 — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
LOSS OF IGNITION RUN - START

When Monitored and Set Condition:

LOSS OF IGNITION RUN - START

When Monitored: With the ignition in the Run-Start position the ACM monitors the Fused Ignition Switch Output Run-Start circuit for proper system voltage.

Set Condition: If the voltage on the Fused Ignition Switch Output Run-Start circuit drops below approximately 6.0 volts, the code will set.

POSSIBLE CAUSES
FUSED IGNITION SW OUTPUT RUN-START SHORT TO GROUND
IGNITION SWITCH RUN - START CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT RUN-START CIRCUIT OPEN
ACM, FUSED IGNITION OUTPUT RUN-START CIRCUIT OPEN
ACM, RUN - START SHORTED TO GROUND
FUSED IGNITION SWITCH OUTPUT RUN - START CIRCUIT SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Ensure the battery is fully charged. Turn the ignition on. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** DETERMINE ACTIVE OR STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 8 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn Ignition off. Remove and inspect the Airbag Run - Start Fuse. **NOTE: Check connectors - Clean and repair as necessary.** Is the Fuse open? Yes → Go To 3 No → Go To 5	All

LOSS OF IGNITION RUN - START — Continued

TEST	ACTION	APPLICABILITY
3	Measure the resistance of the Fused Ignition Switch Output Run-Start circuit between the Airbag Run - Start Fuse and ground. Is the resistance below 10.0 ohms? Yes → Go To 4 No → Replace Airbag Run - Start Fuse. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Disconnect the Airbag Control Module connector **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Fused Ignition Switch Output Run-Start circuit between the ACM Adaptor and ground. Is the resistance below 10K ohms? Yes → Repair the Fused Ignition Switch Output Run - Start circuit short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
5	Turn the ignition on. Measure the voltage of the Ignition Switch Output circuit at the Airbag Run - Start fuse. Is the voltage above approximately 6.0 volts? Yes → Go To 6 No → Repair the open Ignition Switch Output Run - Start circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: Reinstall the fuse after performing this test.**	All

LOSS OF IGNITION RUN - START — Continued

TEST	ACTION	APPLICABILITY
6	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Disconnect the Airbag Control Module connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Reinstall the previously removed Airbag Run-Start Fuse. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Fused Ignition Switch Output Run - Start Circuit at the ACM Adaptor. Is the voltage above approximately 6.0 volts? Yes → Go To 7 No → Repair open Fused Ignition Switch Output Run-Start circuit. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
7	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

LOSS OF IGNITION RUN - START — Continued

TEST	ACTION	APPLICABILITY
8	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
LOSS OF IGNITION RUN ONLY

When Monitored and Set Condition:

LOSS OF IGNITION RUN ONLY

When Monitored: With the ignition in the run position the module monitors the Run Only circuit for proper system voltage.

Set Condition: If the voltage on the Run Only circuit drops below 6.0 volts, the code will set.

POSSIBLE CAUSES
IGNITION SWITCH OUTPUT RUN CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT RUN CIRCUIT OPEN
ACM, FUSED IGNITION OUTPUT RUN CIRCUIT OPEN
CHECKING FOR A SHORTED RUN CIRCUIT
FUSED IGNITION SWITCH OUTPUT RUN CIRCUIT SHORT TO GROUND
ACM, FUSED IGNITION RUN CIRCUIT SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Ensure the battery is fully charged. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** DETERMINE ACTIVE OR STORED DTC: ACM - ACTIVE DTC: Go To 2 ACM - STORED DTC Go To 9 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn the ignition off. Remove and inspect the Airbag Run circuit fuse. Is the Fuse open? Yes → Go To 3 No → Go To 6	All

LOSS OF IGNITION RUN ONLY — Continued

TEST	ACTION	APPLICABILITY
3	Remove the Airbag Run fuse. **NOTE: Check connectors - Clean and repair as necessary.** Measure the resistance of the Fused Ignition Switch Output Run circuit between the Run Fuse and ground. Is the resistance below 10.0 ohms? Yes → Go To 4 No → Replace the defective fuse. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Fused Ignition Switch Output Run circuit between the ACM connector and ground. Is the resistance below 10K ohms? Yes → Repair the Fused Ignition Switch Output Run circuit for a short to ground and replace Airbag Run Fuse. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All
5	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions and replace the Run Only Fuse. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	Turn the ignition on. Measure the voltage of the Ignition Switch Output Run circuit between the Airbag Run circuit fuse and ground. Is the voltage above approximately 6.0 volts? Yes → Go To 7 No → Repair the open Ignition Switch Output Run circuit. Then reinstall the Ignition Switch Output Run fuse. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

LOSS OF IGNITION RUN ONLY — Continued

TEST	ACTION	APPLICABILITY
7	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Reinstall the airbag Run fuse. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Fused Ignition Switch Output Run circuit at the Airbag Control Module connector. Is the voltage above approximately 6.0 volts? Yes → Go To 8 No → Repair the open or high resistance in the Fused Ignition Switch Output Run circuit. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
8	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

LOSS OF IGNITION RUN ONLY — Continued

TEST	ACTION	APPLICABILITY
9	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
NO CLUSTER MESSAGE

When Monitored and Set Condition:

NO CLUSTER MESSAGE

When Monitored: With ignition on, the ACM monitors the PCI Bus for a message from the MIC containing the airbag warning indicator status. The MIC transmits the message one time at ignition on, lamp state change, or in response to the ACM message.

Set Condition: If the MIC message is not received for 10 consecutive seconds, the code will set.

POSSIBLE CAUSES
MIC, COMMUNICATION FAILURE
ACM, NO CLUSTER MESSAGES
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn the ignition on. With the DRBIII®, ensure PCI Bus communications with the Instrument Cluster. Is the Instrument Cluster communicating on the PCI Bus? Yes → Go To 3 No → Refer to category COMMUNICATION CATEGORY and select the related symptom NO RESPONSE or INSTRUMENT CLUSTER BUS +/- SIGNAL OPEN.	All

NO CLUSTER MESSAGE — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, TO AVOID PERSONAL INJURY OR DEATH, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION

When Monitored and Set Condition:

NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION

When Monitored: The ACM continuously communicates with the Left Side Impact Sensor 1 over the sensor signal circuit. The sensor communication and onboard diagnostics are powered by the ACM signal.

Set Condition: The code will set, if the ACM and Left Side Impact Sensor 1 do not establish and maintain valid data communications.

POSSIBLE CAUSES
SIGNAL CIRCUIT SHORTED TO BATTERY
SIGNAL CIRCUIT SHORT TO GROUND
LEFT SIDE SENSOR CIRCUITS SHORTED TOGETHER
GROUND CIRCUIT OPEN
SIGNAL CIRCUIT OPEN
ACM, LEFT SIDE IMPACT SENSOR
REPAIR IS COMPLETE
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 9 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Left Side Impact Sensor connector. Disconnect the Airbag Control Module connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Left Side Impact Sensor Signal circuit and sensor ground circuit at the Left Side Sensor connector and ground. Is there any voltage present? Yes → Repair the Left Side Impact Sensor circuits shorted to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 3	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the resistance of the Left Side Impact Sensor Signal circuit between the Left Side Impact Sensor connector and ground. Is the resistance below 100K ohms? Yes → Repair the Left Side Impact Sense signal circuit shorted for a short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	Measure the resistance between the Left Side Impact Sensor Signal and Sensor Ground circuits at the Left Side Impact Sensor connector. Is the resistance below 100K ohms? Yes → Repair the Left Side Impact Sensor circuits shorted together. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All
5	Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector. Measure the resistance of the Left Side Impact Sensor Ground circuit between the Left Side Impact Sensor connector and the Load Tool ACM Adaptor. Is the resistance below 1 ohm? Yes → Go To 6 No → Repair the Left Side Impact Sensor Ground circuit open or high resistance. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	Measure the resistance of the Left Side Impact Sensor Signal circuit between the Left Side Impact Sensor connector and the Load Tool ACM Adaptor. Is the resistance below 1 ohm? Yes → Go To 7 No → Repair the Left Side Impact Sensor Signal circuit open or high resistance. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
7	Replace the Left Side Impact Sensor. Reconnect the vehicle body harness to the impact sensor. Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Connect the DRB to the Data Link Connector - use the most current software available. Use the DRB III and erase the stored codes in all airbag system modules. Turn the Ignition Off, and wait 15 seconds before turning the Ignition On. Wait one minute, and read active codes and if there are none present read the stored codes. DID the active Left Side Impact Sensor DTC return? Yes → Go To 8 No → Repair is complete. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
8	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO LEFT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
9	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
NO ODOMETER MESSAGE

When Monitored and Set Condition:

NO ODOMETER MESSAGE

When Monitored: With ignition on, the ACM monitors the PCI Bus for the Odometer message from the Body Control Module. The PCM transmits the odometer message at 1 second intervals.

Set Condition: The code will set, if the ACM does not see the odometer message for 10 seconds.

POSSIBLE CAUSES
PCM, PCI COMMUNICATION FAILURE
NO ODOMETER MESSAGE
STORED CODE OR INTERMITTENT CONDITION
ACM, NO ODOMETER MESSAGE
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** Turn the ignition on. SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Connect the DRBIII® to the data link connector and select PASSIVE RESTRAINTS, AIRBAG, SYSTEM TEST. With the DRBIII®, read the PCM Active on the Bus:. Does the DRB show PCM ACTIVE ON THE BUS? Yes → Go To 3 No → Refer to category ″ COMMUNICATION CATEGORY″ and select the related symptom. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO ODOMETER MESSAGE — Continued

TEST	ACTION	APPLICABILITY
3	With the DRB select ENGINE, MISCELLANEOUS, SELECT MISC FUNCTION, and then CHECK VIN to read the Vehicle Identification Number in the Powertrain Control Module. Compare the VIN displayed on the DRB screen and the Vehicle VIN plate. Does the VIN plate and the PCM VIN match? Yes → Go To 4 No → Replace the Powertrain Control Module and program with the correct vehicle identification number. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
NO PCI TRANSMISSION

When Monitored and Set Condition:

NO PCI TRANSMISSION

When Monitored: With the ignition on and the module transmitting information on the BUS.

Set Condition: The code will set immediately if the onboard diagnostic cannot detect the module transmitting information on the BUS. NOTE: Any Bus Failure will may cause a stored code to set.

POSSIBLE CAUSES
AIRBAG CONTROL MODULE - ACM
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** From the list below, select the appropriate module and DTC type for the this diagnostic trouble code. DETERMINE ACTIVE OR STORED DTC ACM - ACTIVE Go To 2 ACM - STORED Go To 3 **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRE-CAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO PCI TRANSMISSION — Continued

TEST	ACTION	APPLICABILITY
3	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION

When Monitored and Set Condition:

NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION

When Monitored: The ACM continuously communicates with the Right Side Impact Sensor 1 over the sensor signal circuit. The sensor communication and onboard diagnostics are powered by the ACM signal.

Set Condition: The code will set, if the ACM and Right Side Impact Sensor 1 do not establish and maintain valid data communications.

POSSIBLE CAUSES
SIGNAL CIRCUIT SHORTED TO BATTERY
SIGNAL CIRCUIT SHORT TO GROUND
RIGHT SIDE SENSOR CIRCUITS SHORTED TOGETHER
GROUND CIRCUIT OPEN
SIGNAL CIRCUIT OPEN
ACM, PASSENGER SIDE IMPACT SENSOR
REPAIR IS COMPLETE
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 9 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Right Side Impact Sensor connector. Disconnect the Airbag Control Module connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Right Side Impact Sensor Signal circuit and sensor ground at the Right Side Impact Sensor connector. Is there any voltage present? Yes → Repair the Right Side Impact Sensor Signal circuit shorted to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 3	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the resistance of the Right Side Impact Sensor Signal circuit between the Right Side Impact Sensor connector and ground. Is the resistance below 100K ohms? Yes → Repair the Right Side Sense signal circuit shorted for a short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	Measure the resistance between the Right Side Impact Sensor Signal and Sensor Ground circuits at the Right Side Impact Sensor connector. Is the resistance below 100K ohms? Yes → Repair the Right Side Impact Sensor circuits shorted together. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 5	All
5	Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector. Measure the resistance of the Right Side Impact Sensor Ground circuit between the Right Side Impact Sensor connector and the Load Tool adaptor. Is the resistance below 1 ohm? Yes → Go To 6 No → Repair the Right Side Front Impact Sensor Ground circuit open or high resistance. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
6	Measure the resistance of the Right Side Impact Sensor Signal circuit between the Right Side Impact Sensor connector and the Load Tool adaptor. Is the resistance below 1 ohm? Yes → Go To 7 No → Repair the Right Side Impact Sensor Signal circuit open or high resistance. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
7	Replace the Right Side Impact Sensor. Reconnect the vehicle body harness to the impact sensor. Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Connect the DRB to the Data Link Connector - use the most current software available. Use the DRB III and erase the stored codes in all airbag system modules. Turn the Ignition Off, and wait 15 seconds before turning the Ignition On. Wait one minute, and read active codes and if there are none present read the stored codes. DID the active Right Side Impact Sensor DTC return? Yes → Go To 8 No → Repair is complete. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
8	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

NO RIGHT SIDE IMPACT SENSOR 1 COMMUNICATION — Continued

TEST	ACTION	APPLICABILITY
9	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER CURTAIN SQUIB CIRCUIT OPEN

When Monitored and Set Condition:

PASSENGER CURTAIN SQUIB CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Curtain Squib circuits.

Set Condition: When the ACM detects an open circuit or high resistance on the Curtain Squib circuits.

POSSIBLE CAUSES
PASSENGER CURTAIN AIRBAG CIRCUIT OPEN
PASSENGER CURTAIN SQUIB LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, PASSENGER CURTAIN SQUIB CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER CURTAIN SQUIB CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Curtain Airbag connector. **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Curtain Airbag connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER CURTAIN SQUIB CIRCUIT OPEN? Yes → Go To 3 No → Replace Passenger Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Load Tool from the Passenger Curtain Airbag connector(s). Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Passenger Curtain Squib Line 1 and Line 2 circuits between the Load Tool ACM adaptor and the Passenger Curtain Airbag connector. Is the resistance below 1.0 ohms on both circuits? Yes → Go To 4 No → Repair open or high resistance in the Passenger Curtain Squib Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER CURTAIN SQUIB CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER CURTAIN SQUIB CIRCUIT SHORT

When Monitored and Set Condition:

PASSENGER CURTAIN SQUIB CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance between the Passenger Curtain Squib circuits.

Set Condition: When the ACM detects a low resistance between the Passenger Curtain Squib circuits.

POSSIBLE CAUSES
PASSENGER CURTAIN SQUIB CIRCUIT SHORT
PASSENGER CURTAIN SQUIB LINE 1 SHORT TO LINE 2
ACM, PASSENGER CURTAIN SQUIB CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER CURTAIN SQUIB CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Curtain Airbag connector. **NOTE: Check connectors - Clean repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Curtain Airbag connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER CURTAIN SQUIB CIRCUIT SHORT? Yes → Go To 3 No → Replace Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Curtain Airbag connector(s). Disconnect the Airbag Control Module connector **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool ACM Adaptor to the ACM connector(s). Measure the resistance between the Passenger Curtain Squib Line 1 and Line 2 circuits at the Passenger Curtain Airbag connector. Is the resistance below 10K ohms? Yes → Repair Passenger Curtain Squib Line 1 short to Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER CURTAIN SQUIB CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER CURTAIN SQUIB SHORT TO BATTERY

When Monitored and Set Condition:

PASSENGER CURTAIN SQUIB SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage of the Passenger Curtain Squib circuits.

Set Condition: When the ACM detects voltage on the Passenger Curtain Squib circuits.

POSSIBLE CAUSES
PASSENGER CURTAIN AIRBAG SHORT TO BATTERY
CURTAIN SQUIB LINE 1 OR LINE 2 SHORTED TO BATTERY
ACM, PASSENGER CURTAIN SQUIB SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER CURTAIN SQUIB SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Curtain Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Curtain Airbag connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® display PASSENGER CURTAIN SQUIB SHORT TO BATTERY? Yes → Go To 3 No → Replace Passenger Curtain Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Load Tool from the Passenger Curtain Squib connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the ACM connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Passenger Curtain Squib Line 1 and Line 2 circuits between the Passenger Curtain Airbag connector and ground. Is any voltage present on either circuit? Yes → Repair Passenger Curtain Squib Line 1 or Line 2 short to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER CURTAIN SQUIB SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER CURTAIN SQUIB SHORT TO GROUND

When Monitored and Set Condition:

PASSENGER CURTAIN SQUIB SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Curtain Squib circuits.

Set Condition: When the ACM detects a short to ground in either Passenger Curtain Squib circuits.

POSSIBLE CAUSES
PASSENGER CURTAIN SQUIB SHORT TO GROUND
PASSENGER CURTAIN SQUIB LINE 1 OR LINE 2 SHORT TO GROUND
ACM, PASSENGER CURTAIN SQUIB SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER CURTAIN SQUIB SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Curtain Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Curtain Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read active Airbag Control Module DTC's. Does the DRBIII® display PASSENGER CURTAIN SQUIB SHORT TO GROUND? Yes → Go To 3 No → Replace the Passenger Curtain Airbag in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module connector(s). Disconnect the Load Tool from the Passenger Curtain Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED CURTAIN AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool ACM Adaptor to the ACM connector(s). Measure the resistance of the Passenger Curtain Squib Line 1 and Line 2 circuits between the Passenger Curtain Squib connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Passenger Curtain Squib Line 1 or Line 2 short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER CURTAIN SQUIB SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN

When Monitored and Set Condition:

PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Seat Belt Tensioner circuits.

Set Condition: When the ACM detects an open circuit or high resistance in the Passenger Seat Belt Tensioner circuits.

POSSIBLE CAUSES
PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN
PASSENGER SEAT BELT TENSIONER LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Passenger Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® display PASSENGER SBT CIRCUIT OPEN? Yes → Go To 3 No → Replace the Passenger Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger SBT connector. Disconnect the Airbag control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector. Measure the resistance of the Passenger Seat Belt Tensioner Line 1 and Line 2 circuits between the Load Tool Adaptor and the Passenger SBT connector. Is the resistance below 1.0 ohms on either circuit ? Yes → Go To 4 No → Repair open or high resistance in Passenger Seat Belt Tensioner Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT

When Monitored and Set Condition:

PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance between the Passenger Seat Belt Tensioner circuits.

Set Condition: When the ACM detects low resistance in the Passenger Seat Belt Tensioner circuits.

POSSIBLE CAUSES
PASSENGER SEAT BELT TENSIONER LINE 1 SHORT TO LINE 2
PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT
ACM, PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Passenger Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT? Yes → Go To 3 No → Replace the Passenger Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Seat Belt Tensioner connector. Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance between the Passenger SBT Line 1 and line 2 circuit at the Passenger Seat Belt Tensioner connector. Is the resistance below 10K ohms? Yes → Repair the Passenger Seat Belt Tensioner Line 1 short to Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY

When Monitored and Set Condition:

PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY

When Monitored: When the ignition is on, the ACM monitors the voltage of the Passenger Seat Belt Tensioner circuits.

Set Condition: When the ACM detects voltage on the Passenger Seat Belt Tensioner circuits.

POSSIBLE CAUSES
PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY
PASSENGER SEAT BELT TENSIONER LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, PASSENGER SBT SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Passenger Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® display PASSENGER SBT SHORT TO BATTERY? Yes → Go To 3 No → Replace the Passenger Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Seat Belt Tensioner connector. Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage of the Passenger SBT Line 1 and Line 2 circuits between the Passenger Seat Belt Tensioner connector and ground. Is there any voltage on either circuit? Yes → Repair the Passenger Seat Belt Tensioner Line 1 or Line 2 short to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SEAT BELT TENSIONER SHORT TO GROUND

When Monitored and Set Condition:

PASSENGER SEAT BELT TENSIONER SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Seat Belt Tensioner circuits.

Set Condition: When the ACM detects la short to ground in either Passenger Seat Belt Tensioner circuits.

POSSIBLE CAUSES
PASSENGER SEAT BELT TENSIONER SHORT TO GROUND
PASSENGER SEAT BELT TENSIONER LINE 1 OR LINE 2 SHORTED TO GROUND
ACM, PASSENGER SBT SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Seat Belt Tensioner connector. **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool to the Passenger Seat Belt Tensioner connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® display PASSENGER SBT SHORT TO GROUND? Yes → Go To 3 No → Replace the Passenger Seat Belt Tensioner in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SEAT BELT TENSIONER SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Seat Belt Tensioner connector. Disconnect the Airbag Control Module Connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Passenger Seat Belt Tensioner Line 1 and Line 2 circuits between the Passenger SBT connector and ground. Is the resistance below 10K Ohms on either circuit? Yes → Repair the Passenger Seat Belt Tensioner Line 1 or Line 2 short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Replace the Airbag Control Module in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 1 CIRCUIT OPEN

When Monitored and Set Condition:

PASSENGER SQUIB 1 CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Squib 1 circuits.

Set Condition: When the ACM detects an open circuit or high resistance on the Passenger Squib 1 circuits.

POSSIBLE CAUSES
PAB SQUIB 1 CIRCUIT OPEN
PAB SQUIB 1 LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, PAB SQUIB 1 CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 1 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 1 CIRCUIT OPEN? Yes → Go To 3 No → Replace the Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the Load Tool ACM Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Passenger Squib 1 Line 1 and Line 2 circuit between the ACM Adaptor and the Passenger Airbag connector. Is the resistance below 1.0 ohms on both circuits? Yes → Go To 4 No → Repair open or high resistance in Passenger Squib 1 Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 1 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 1 CIRCUIT SHORT

When Monitored and Set Condition:

PASSENGER SQUIB 1 CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance between the Passenger Squib 1 circuits.

Set Condition: When the ACM detects low resistance in the Passenger Squib 1 circuits.

POSSIBLE CAUSES
PAB SQUIB 1 CIRCUIT SHORT
PAB SQUIB 1 LINE 1 SHORT TO LINE 2
ACM, PAB SQUIB 1 CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 1 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 1 CIRCUIT SHORT? Yes → Go To 3 No → Replace the Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adapter to the Airbag Control Module connector(s). Measure the resistance between Passenger Squib 1 Line 1 and Line 2 circuits at the Passenger Airbag connector. Is the resistance below 10K ohms? Yes → Repair Passenger Squib 1 Line 1 circuit short to Passenger Squib 1 Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 1 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 1 SHORT TO BATTERY

When Monitored and Set Condition:

PASSENGER SQUIB 1 SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage on the Passenger Squib 1 circuits.

Set Condition: When the ACM detects voltage on the Passenger Squib 1 circuits.

POSSIBLE CAUSES
PAB SQUIB 1 CIRCUITS SHORT TO BATTERY
PAB SQUIB 1 LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, PAB SQUIB 1 CIRCUIT SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 1 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 1 CIRCUIT SHORT TO BATTERY? Yes → Go To 3 No → Replace Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). **WARNING: AVOID PERSONAL INJURY OR DEATH, TURN IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage on the Passenger Squib 1 Line 1 and Line 2 circuits between the Passenger Airbag connector and ground. Is there any voltage present? Yes → Repair Passenger Squib 1 Line 1 or Line 2 circuit short to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 1 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 1 SHORT TO GROUND

When Monitored and Set Condition:

PASSENGER SQUIB 1 SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Squib 1 circuits.

Set Condition: When the ACM detects a short to ground in either Passenger Squib 1 circuits.

POSSIBLE CAUSES
PAB SQUIB 1 CIRCUITS SHORT TO GROUND
PAB SQUIB 1 LINE 1 OR LINE 2 SHORT TO GROUND
ACM, PAB SQUIB 1 SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 1 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED, AND COULD RESULT IN SERIOUS OR FATAL INJURY.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 1 SHORT TO GROUND? Yes → Go To 3 No → Replace the Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector. Measure the resistance of the Passenger Squib 1 Line 1 or Line 2 circuit between the Passenger Airbag Module Connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Passenger Squib 1 Line 1 and Line 2 circuits for a short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 1 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 2 CIRCUIT OPEN

When Monitored and Set Condition:

PASSENGER SQUIB 2 CIRCUIT OPEN

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Squib 2 circuits.

Set Condition: When the ACM detects an open circuit or high resistance on the Passenger Squib 2 circuits.

POSSIBLE CAUSES
PASSENGER AIRBAG SQUIB 2 CIRCUIT OPEN
PASSENGER SQUIB 2 LINE 1 OR LINE 2 CIRCUIT OPEN
ACM, PASSENGER SQUIB 2 CIRCUIT OPEN
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 2 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 2 CIRCUIT OPEN? Yes → Go To 3 No → Replace the Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool adaptor to the Airbag Control Module connector(s). Measure the resistance of the Passenger Squib 2 Line 1 and Line 2 circuits between the ACM Adaptor and the Passenger Airbag connector. Is the resistance below 1.0 ohms on both circuits? Yes → Go To 4 No → Repair open or high resistance in Passenger Squib 2 Line 1 or Line 2 circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 2 CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 2 CIRCUIT SHORT

When Monitored and Set Condition:

PASSENGER SQUIB 2 CIRCUIT SHORT

When Monitored: With the ignition on, the ACM monitors the resistance between the Passenger Squib 2 circuits.

Set Condition: When the ACM detects low resistance in the Passenger Squib 2 circuits.

POSSIBLE CAUSES
PASSENGER AIRBAG SQUIB 2 CIRCUIT SHORT
PASSENGER SQUIB 2 LINE 1 SHORT TO LINE 2
ACM, PASSENGER SQUIB 2 CIRCUIT SHORT
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 2 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 2 CIRCUIT SHORT? Yes → Go To 3 No → Replace Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). Measure the resistance between the Passenger Squib 2 Line 1 and line 2 circuits at the Passenger Airbag connector(s). Is the resistance below 10K ohms? Yes → Repair Passenger Squib 2 Line 1 circuit short to Passenger Squib 2 Line 2 circuit. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 2 CIRCUIT SHORT — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 2 SHORT TO BATTERY

When Monitored and Set Condition:

PASSENGER SQUIB 2 SHORT TO BATTERY

When Monitored: With the ignition on, the ACM monitors the voltage of the Passenger Squib 2 circuits.

Set Condition: When the ACM detects voltage on the Passenger Squib 2 circuits.

POSSIBLE CAUSES
PASSENGER AIRBAG SQUIB 2 CIRCUIT SHORT TO BATTERY
PASSENGER SQUIB 2 LINE 1 OR LINE 2 SHORT TO BATTERY
ACM, PASSENGER SQUIB 2 CIRCUIT SHORT TO BATTERY
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 2 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 2 SHORT TO BATTERY? Yes → Go To 3 No → Replace Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Measure the voltage on the Passenger Squib 2 Line 1 and Line 2 circuits between the Passenger Airbag connector and ground. Is there any voltage present? Yes → Repair Passenger Squib 2 Line 1 or Line 2 circuit shorted to battery. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 2 SHORT TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
PASSENGER SQUIB 2 SHORT TO GROUND

When Monitored and Set Condition:

PASSENGER SQUIB 2 SHORT TO GROUND

When Monitored: With the ignition on, the ACM monitors the resistance of the Passenger Squib 2 circuits.

Set Condition: When the ACM detects a short to ground in either Passenger Squib 2 circuits.

POSSIBLE CAUSES
PASSENGER AIRBAG SQUIB 2 CIRCUIT SHORT TO GROUND
PASSENGER SQUIB 2 LINE 1 OR LINE 2 SHORT TO GROUND
ACM, PASSENGER SQUIB 2 CIRCUIT SHORT TO GROUND
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

PASSENGER SQUIB 2 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
2	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Passenger Airbag connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Connect the appropriate Load Tool to the Passenger Airbag connector(s). **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII®, read the active Airbag Control Module DTC's. Does the DRBIII® show PASSENGER SQUIB 2 CIRCUIT SHORT TO GROUND? Yes → Go To 3 No → Replace the Passenger Airbag in accordance with the Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, DO NOT PLACE AN INTACT UNDEPLOYED AIRBAG FACE DOWN ON A HARD SURFACE, THE AIRBAG WILL PROPEL INTO THE AIR IF ACCIDENTALLY DEPLOYED.** Disconnect the Load Tool from the Passenger Airbag connector(s). Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean repair as necessary.** Connect the appropriate Load Tool Adaptor to the Airbag Control Module connector(s). Measure the resistance of the Passenger Squib 2 Line 1 and Line 2 circuits between the Passenger Airbag Module connector and ground. Is the resistance below 10K ohms on either circuit? Yes → Repair Passenger Squib 2 Line 1 or Line 2 circuit for a short to ground. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair: Replace the Airbag Control Module in accordance with Service Information. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

PASSENGER SQUIB 2 SHORT TO GROUND — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
POWER SUPPLY VOLTAGE LOW

When Monitored and Set Condition:

POWER SUPPLY VOLTAGE LOW

When Monitored: The ACM continuously monitors the Ignition Run - Start and Run Only circuits to guarantee that the Side Impact Sensors will have sufficient voltage to function properly.

Set Condition: Once both ignition feeds into the ACM are determined to be below 7.4 volts, with at least one above 5.5 volts. The code will remain set until at least one ignition circuit is above 8.0 volts.

POSSIBLE CAUSES
RUN OR RUN - START ACTIVE TROUBLE CODES
RUN AND RUN - START CIRCUITS VOLTAGE LOW
ACM, LOW SUPPLY VOLTAGE
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Ensure the battery is fully charged. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** Repair all Ignition Run and Run-Start circuit DTCs before performing this test. SELECT ACTIVE OR STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	With the DRBIII®, read the active DTCs. **NOTE: A Diagnostic trouble code will set if the voltage on the Ignition Run or Run - Start circuits is less than 5.5 volts** Verify that all Ignition Run and Run - Start circuits DTCs have been repaired before performing the ACTIVE Power Supply Voltage Low DTC. Any active Run or Run - Start codes? Yes → Refer to symptom list for problems related to Fused Ignition Switch Output Run and Run - Start circuits. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 3	All

POWER SUPPLY VOLTAGE LOW — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module connector(s). **NOTE: Check connectors - Clean and repair as necessary.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** Connect the appropriate Load Tool ACM Adaptor to the Airbag Control Module connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Using a 12-volt test light connected to ground, check the Run and Run - Start circuits at the ACM adaptor. The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery. Does the test light illuminate brightly on both circuits? Yes → Go To 4 No → Repair the high resistance in the Fused Ignition Switch Output Run and Run - Start circuits. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

POWER SUPPLY VOLTAGE LOW — Continued

TEST	ACTION	APPLICABILITY
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
RIGHT SIDE IMPACT SENSOR INTERNAL 1

When Monitored and Set Condition:

RIGHT SIDE IMPACT SENSOR INTERNAL 1

When Monitored: At ignition on, the Right Side Impact Sensor 1 is equipped with onboard diagnostics to monitor the sensors internal circuits. If a problem is identified the sensor sends the Right Side Impact Sensor 1 internal 1 message to the ACM.

Set Condition: The code will set, if the ACM receives an Impact Sensor Internal 1 message from the Right Side Impact Sensor 1.

POSSIBLE CAUSES
ACM, RIGHT SIDE IMPACT SENSOR 1
REPAIR IS COMPLETE
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: Ensure the battery is fully charged.** **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 4 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Replace the Right Side Impact Sensor 1. Reconnect the vehicle body harness to the impact sensor. Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** Connect the DRB to the Data Link Connector - use the most current software available. Use the DRB III and erase the stored codes in all airbag system modules. Turn the Ignition Off, and wait 15 seconds before turning the Ignition On. Wait one minute, and read active codes and if there are none present read the stored codes. DID the active Right Side Impact Sensor 1 Internal 1 DTC return? Yes → Go To 3 No → Repair is complete. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

RIGHT SIDE IMPACT SENSOR INTERNAL 1 — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1.	All
4	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
VEHICLE BODY STYLE MISMATCH

When Monitored and Set Condition:

VEHICLE BODY STYLE MISMATCH

When Monitored: When the ignition is on, the ACM monitors the PCI Bus for the VIN message containing the vehicle body style from the Powertrain Control Module. The PCM transmits the VIN message every 14 seconds.

Set Condition: With ignition on, If the ACM does not receive 2 consecutive matching (vehicle Body Style) VIN messages on the bus the code will set.

POSSIBLE CAUSES
PCM, PCI COMMUNICATION FAILURE
VEHICLE BODY STYLE MISMATCH
ACM, VEHICLE BODY STYLE MISMATCH
STORED CODE OR INTERMITTENT CONDITION
ACTIVE CODE PRESENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Ensure the battery is fully charged. **NOTE: For the purpose of this test, the AECM and ORC modules will be referred to as an ACM.** SELECT ACTIVE or STORED DTC: ACM - ACTIVE DTC Go To 2 ACM - STORED DTC Go To 5 **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	Turn the ignition on. Connect the DRBIII® to the data link connector and select PASSIVE RESTRAINTS, AIRBAG, SYSTEM TEST. With the DRBIII®, read the PCM Active on the Bus:. Does the DRB show PCM ACTIVE ON THE BUS:? Yes → Go To 3 No → Refer to category COMMUNICATION CATEGORY and select the related symptom.	All

VEHICLE BODY STYLE MISMATCH — Continued

TEST	ACTION	APPLICABILITY
3	With the DRB select ENGINE, MISCELLANEOUS, SELECT MISC FUNCTION, and then CHECK VIN to read the Vehicle Identification Number in the Powertrain Control Module. Compare the VIN displayed on the DRB screen and the Vehicle VIN plate. Does the VIN plate and the PCM VIN match? Yes → Go To 4 No → Replace the Powertrain Control Module and program with the correct vehicle identification number.	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** **WARNING: IF THE AIRBAG CONTROL MODULE IS DROPPED AT ANY TIME, IT MUST BE REPLACED. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND PERSONAL INJURY OR DEATH.** If there are no possible causes remaining, view repair. Repair Replace the Airbag Control Module in accordance with Service Instructions. WARNING: make sure the battery is disconnected and wait 2 minutes before proceeding. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: When reconnecting airbag system components the Ignition must be turned off and the Battery must be disconnected.**	All
5	With the DRBIII®, record and erase all DTC's from all Airbag modules. If equipped with Passenger Airbag On - Off switch, read the DTC's in all switch positions. If any ACTIVE codes are present they must be resolved before diagnosing any stored codes. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Look for chaffed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. The following additional checks may assist you in identifying a possible intermittent problem. Reconnect any disconnected components and harness connector. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** With the DRBIII® monitor active codes as you work through the following steps. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, MAINTAIN A SAFE DISTANCE FROM ALL AIRBAGS WHILE PERFORMING THE FOLLOWING STEPS.** Wiggle the wiring harness and connectors of the related airbag circuit or component. If codes are related to the Driver Airbag circuits, rotate the steering wheel from stop to stop. You have just attempted to simulate the condition that initially set the trouble code message. Did the DTC become active? Yes → Select appropriate symptom from Symptom List. No → No problem found at this time. Erase all codes before returning vehicle to customer.	All

Symptom:
*AIRBAG INDICATOR ON WITHOUT ACTIVE TROUBLE CODES

POSSIBLE CAUSES
AIRBAG WARNING INDICATOR ON WITHOUT ACTIVE TROUBLE CODES
INSTRUMENT CLUSTER PROBLEMS

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure the battery is fully charged.** Turn the ignition on. Make sure that all active DTC's have been repaired before performing this procedure. With the DRBIII® select the PASSIVE RESTRAINTS, AIRBAG, MONITOR DISPLAY and read the WARNING LAMP STATES. With no active DTCs, Does the LAMP REQ by ACM monitor show ON? Yes → Replace the Airbag Control Module in accordance with Service Instructions. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Refer to INSTRUMENT CLUSTER CATEGORY symptom list for problems related to Instrument Cluster. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

Symptom:
ALL OUTPUTS SHORT - PREMIUM AUDIO SYSTEM

When Monitored and Set Condition:

ALL OUTPUTS SHORT - PREMIUM AUDIO SYSTEM

When Monitored: Ignition in RUN and IOD fuse installed.

Set Condition: The radio has sensed a short on the output for more than 10 seconds.

POSSIBLE CAUSES
DETERMINE FAULT
SPEAKER SECTION OF POWER AMPLIFIER
(+) CIRCUIT SHORTED TO GROUND
(-) CIRCUIT SHORTED TO GROUND
SPEAKER (+) & (-) CIRCUITS SHORTED TOGETHER
SPEAKER SECTION OF RADIO

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Turn the Radio on. With the DRBIII®, erase the audio DTC's. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read the audio DTC's. Does the DRBIII® display ALL OUTPUTS SHORT? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent short. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Power Amplifier harness connector. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display ALL OUTPUTS SHORT? Yes → Go To 3 No → Replace the Power Amplifier in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1.	All

ALL OUTPUTS SHORT - PREMIUM AUDIO SYSTEM — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and any speaker (+) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (+) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and any speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (-) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between each speaker (+) circuit and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms for any of the measurements? Yes → Repair the speaker circuits shorted together. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	If there are no possible causes remaining, view repair. Repair Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
ALL OUTPUTS SHORT- BASE AUDIO SYSTEM

When Monitored and Set Condition:

ALL OUTPUTS SHORT- BASE AUDIO SYSTEM

When Monitored: Ignition in RUN and IOD fuse installed.

Set Condition: The radio has sensed a short on the output for more than 10 seconds.

POSSIBLE CAUSES
DETERMINE FAULT
FRONT SHORTED SPEAKER
REAR SHORTED SPEAKER
(+) CIRCUIT SHORTED TO GROUND
(-) CIRCUIT SHORTED TO GROUND
SPEAKER (+) & (-) CIRCUITS SHORTED TOGETHER
SPEAKER SECTION OF RADIO

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Turn the Radio on. With the DRBIII®, erase the audio DTC's. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read the audio DTC's. Does the DRBIII® display ALL OUTPUTS SHORT? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent short. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. **NOTE: Perform this procedure after disconnecting each front speaker and each I/P speaker (if equipped) connector.** Disconnect each front speaker and each I/P speaker (if equipped) harness connector one at a time. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display ALL OUTPUTS SHORT with all the speakers disconnected? Yes → Go To 3 No → Replace the Speaker that when disconnected the DTC did not reset. Perform BODY VERIFICATION TEST - VER 1.	All

ALL OUTPUTS SHORT- BASE AUDIO SYSTEM — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. **NOTE: Perform this procedure after disconnecting each rear speaker connector.** Disconnect each rear speaker harness connector one at a time. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display ALL OUTPUTS SHORT with all the rear speakers disconnected? Yes → Go To 4 No → Replace the Speaker that when disconnected the DTC did not reset. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect each front and rear speaker harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and each speaker (+) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (+) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect each front and rear speaker harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (-) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect each front and rear speaker harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between each speaker (+) circuit and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms for any of the measurements? Yes → Repair the speaker circuits shorted together. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	If there are no possible causes remaining, view repair. Repair Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

CASSETTE PLAYER INOP
CD MECHANICAL FAILURE
***AM/FM SWITCH INOPERATIVE**
***ANY STATION PRESET SWITCH INOPERATIVE**
***BALANCE INOPERATIVE**
***CD EJECT SWITCH INOPERATIVE**
***EQUALIZER INOPERATIVE**
***FADER INOPERATIVE**
***FF/RW SWITCH INOPERATIVE**
***HOUR/MINUTE SWITCHES INOPERATIVE**
***PAUSE/PLAY SWITCH INOPERATIVE**
***PWR SWITCH INOPERATIVE**
***SCAN SWITCH INOPERATIVE**
***SEEK SWITCH INOPERATIVE**
***SET SWITCH INOPERATIVE**
***TAPE EJECT SWITCH INOPERATIVE**
***TIME SWITCH INOPERATIVE**
***TUNE SWITCH INOPERATIVE**

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be CASSETTE PLAYER INOP.

When Monitored and Set Condition:

CASSETTE PLAYER INOP

When Monitored: Continuously with the ignition and radio turned on.

Set Condition: The code will set if the radio detects a internal cassette failure.

CD MECHANICAL FAILURE

When Monitored: Continuously with the ignition and CD player turned on.

Set Condition: The code will set if the radio detects a CD mechanical failure.

POSSIBLE CAUSES
INTERNAL FAILURE

CASSETTE PLAYER INOP — Continued

TEST	ACTION	APPLICABILITY
1	**NOTE: If a DTC is set, erase the DTC and attempt to reset the DTC. If DTC resets, follow this test.** This is an internal radio failure. View repair Repair Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
CD CHANGER MECHANICAL FAILURE

When Monitored and Set Condition:

CD CHANGER MECHANICAL FAILURE

When Monitored: Continuously with the ignition and CD Changer turned on.

Set Condition: The code will set if the CD Changer detects a mechanical failure.

POSSIBLE CAUSES
INTERNAL FAILURE

TEST	ACTION	APPLICABILITY
1	**NOTE: Erase DTC and attempt to reset. If DTC resets, follow this test.** This is an internal CD Changer failure. View repair Repair Replace the CD Changer. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
CD CHANGER READ FAILURE

When Monitored and Set Condition:

CD CHANGER READ FAILURE

When Monitored: Continuously with the ignition and CD Changer turned on.

Set Condition: The code will set if a CD that is not formatted as a music CD is installed in the CD Changer.

POSSIBLE CAUSES
CD CHANGER READ FAILURE

TEST	ACTION	APPLICABILITY
1	Replace the problem CD with a good, clean, unscratched, music CD. Turn the radio on and select the good CD. With the DRBIII®, read DTC's. Does the DRBIII® display CD CHANGER READ FAILURE? Yes → Replace the CD Changer. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
CD CHANGER TEMPERATURE HIGH

When Monitored and Set Condition:

CD CHANGER TEMPERATURE HIGH

When Monitored: Continuously with the ignition and CD Changer turned on.

Set Condition: The code will set if the temperature inside the CD Changer is above +65° C (+145° F).

POSSIBLE CAUSES
HIGH TEMPERATURE FAILURE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase the audio DTC's. Start the engine and allow the engine to reach normal operating temperature. If the vehicle has been in the hot sunlight or extreme cold move the vehicle indoors and open the doors to allow the inside temperature to stabilize. The CD Changer will operate between -23° C and 65° C (-10° F and +145° F). With the DRBIII®, read DTC's. Does the DRBIII® display CD CHANGER TEMPERATURE HIGH? Yes → Replace the CD Changer. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
CD PLAY FAILURE

When Monitored and Set Condition:

CD PLAY FAILURE

When Monitored: Continuously with the ignition and the radio CD player turned on.

Set Condition: The code will set if a CD that is not formatted as a music CD or is scratched, dirty so the radio can not play the CD.

POSSIBLE CAUSES
CD PLAY FAILURE

TEST	ACTION	APPLICABILITY
1	Replace the problem CD with a good, clean, unscratched, music CD. Turn the radio CD player on. With the DRBIII®, read DTC's. Does the DRBIII® display CD PLAY FAILURE? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
CD READ FAILURE

When Monitored and Set Condition:

CD READ FAILURE

When Monitored: Continuously with the ignition and the radio CD player turned on.

Set Condition: The code will set if a CD that is not formatted as a music CD is installed in the radio CD player.

POSSIBLE CAUSES
CD READ FAILURE

TEST	ACTION	APPLICABILITY
1	Replace the problem CD with a good, clean, unscratched, music CD. Turn the radio CD player on. With the DRBIII®, read DTC's. Does the DRBIII® display CD READ FAILURE? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
CD TEMPERATURE HIGH

When Monitored and Set Condition:

CD TEMPERATURE HIGH

When Monitored: Continuously with the ignition and the radio CD player turned on.

Set Condition: The code will set if the temperature inside the radio CD player is above +85° C (+185° F).

POSSIBLE CAUSES
HIGH TEMPERATURE FAILURE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase the audio DTC's. Start the engine and allow the engine to reach normal operating temperature. If the vehicle has been in the hot sunlight or extreme cold move the vehicle indoors and open the doors to allow the inside temperature to stabilize. The radio CD player will operate between -30° C and 85° C (-22° F and +185° F). With the DRBIII®, read DTC's. Does the DRBIII® display CD TEMPERATURE HIGH? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
LOW VOLTAGE LEVEL

When Monitored and Set Condition:

LOW VOLTAGE LEVEL

When Monitored:

Set Condition: The radio detects lower than normal voltage.

POSSIBLE CAUSES
CHECK CHARGING SYSTEM
CHECK VOLTAGE LEVEL AT RADIO
RADIO

TEST	ACTION	APPLICABILITY
1	Check the charging system in accordance with the service information. Is the charging system operating properly? Yes → Go To 2 No → Refer to the appropriate service information and repair as necessary. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Radio harness connector. Start the engine. Measure the voltage of each Fused B+ circuit and the Fused Ignition Switch Output circuit. Is the voltage above or approximately 14 volts for each measurement? Yes → Go To 3 No → Repair the circuit for high resistance. Perform BODY VERIFICATION TEST - VER 1.	All
3	**Note: Reconnect all previously disconnected components.** Turn the ignition and Radio on. With the DRBIII®, erase the audio DTC's. Start the engine. With the DRBIII®, read the audio DTC's. Did this DTC reset? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
NO ANTENNA CONNECTION

When Monitored and Set Condition:

NO ANTENNA CONNECTION

When Monitored: With the ignition on and the radio in seek up/down mode.

Set Condition: With the radio in seek or scan mode for two minutes and the radio does not detect an antenna connection or does not receive a radio station signal.

POSSIBLE CAUSES
BAD ANTENNA CONNECTION
TEST ANTENNA
RADIO

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Disconnect the Radio Antenna connector. Inspect the Radio Antenna connection. Was the Antenna connection clean and tight? Yes → Go To 2 No → Repair Antenna connection as needed. Perform BODY VERIFICATION TEST - VER 1.	All
2	Refer to the Audio System in the service information and test the Antenna in accordance with the service procedure. Is the Antenna ok? Yes → Go To 3 No → Repair or replace the Antenna assembly as necessary. Perform BODY VERIFICATION TEST - VER 1.	All
3	**NOTE: Reconnect all previously disconnected components.** Turn the ignition and Radio on. **NOTE: Move vehicle outside approximately 30ft from any structure.** With the DRBIII®, erase the audio DTC's, put the radio in seek up and seek down mode for approximately 2 minutes before proceeding. With the DRBIII®, read the audio DTC's. Did this DTC reset? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
POWER AMP SHUTDOWN - BASE AUDIO SYSTEM

When Monitored and Set Condition:

POWER AMP SHUTDOWN - BASE AUDIO SYSTEM

When Monitored: Ignition in RUN and IOD fuse installed.

Set Condition: The radio has sensed a short on the output for more than 10 seconds.

POSSIBLE CAUSES
DETERMINE FAULT
FRONT SHORTED SPEAKER
REAR SHORTED SPEAKER
(+) CIRCUIT SHORTED TO GROUND
(-) CIRCUIT SHORTED TO GROUND
SPEAKER (+) & (-) CIRCUITS SHORTED TOGETHER
SPEAKER SECTION OF RADIO

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Turn the Radio on. With the DRBIII®, erase the audio DTC's. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read the audio DTC's. Does the DRBIII® display POWER AMP SHUTDOWN? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent short. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. **NOTE: Perform this procedure after disconnecting each front speaker and each I/P speaker (if equipped) connector.** Disconnect each front speaker and each I/P speaker (if equipped) harness connector one at a time. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display POWER AMP SHUTDOWN with all the speakers disconnected? Yes → Go To 3 No → Replace the Speaker that when disconnected the DTC did not reset. Perform BODY VERIFICATION TEST - VER 1.	All

POWER AMP SHUTDOWN - BASE AUDIO SYSTEM — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. **NOTE: Perform this procedure after disconnecting each rear speaker connector.** Disconnect each rear speaker harness connector one at a time. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display POWER AMP SHUTDOWN with all the rear speakers disconnected? Yes → Go To 4 No → Replace the Speaker that when disconnected the DTC did not reset. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect each front and rear speaker harness connectors. Disconnect the Radio C1 harness connector. Measure the resistance between ground and each speaker (+) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (+) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect each front and rear speaker harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (-) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect each front and rear speaker harness connectors. Disconnect the Radio C1 harness connector. Measure the resistance between each speaker (+) circuit and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms for any of the measurements? Yes → Repair the speaker circuits shorted together. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	If there are no possible causes remaining, view repair. Repair Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
POWER AMP SHUTDOWN - PREMIUM AUDIO SYSTEM

When Monitored and Set Condition:

POWER AMP SHUTDOWN - PREMIUM AUDIO SYSTEM

When Monitored: Ignition in RUN and IOD fuse installed.

Set Condition: The radio has sensed a short on the output for more than 10 seconds.

POSSIBLE CAUSES
DETERMINE FAULT
SPEAKER SECTION OF POWER AMPLIFIER
(+) CIRCUIT SHORTED TO GROUND
(-) CIRCUIT SHORTED TO GROUND
SPEAKER (+) & (-) CIRCUITS SHORTED TOGETHER
SPEAKER SECTION OF RADIO

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Turn the Radio on. With the DRBIII®, erase the audio DTC's. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read the audio DTC's. Does the DRBIII® display POWER AMP SHUTDOWN? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent short. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Power Amplifier harness connector. Turn the ignition on. Turn the radio on. With the DRBIII®, erase the audio DTCs. Cycle the ignition switch from off to on and wait 10 seconds. With the DRBIII®, read DTC's. Does the DRBIII® display POWER AMP SHUTDOWN? Yes → Go To 3 No → Replace the Power Amplifier. Perform BODY VERIFICATION TEST - VER 1.	All

POWER AMP SHUTDOWN - PREMIUM AUDIO SYSTEM — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and any speaker (+) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (+) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between ground and any speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms? Yes → Repair the speaker (-) circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the Power Amplifier harness connector. Disconnect the Radio C1 harness connector. Measure the resistance between each speaker (+) circuit and each speaker (-) circuit. Is the resistance below 1000.0 (1K) ohms for any of the measurements? Yes → Repair the speaker circuits shorted together. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	If there are no possible causes remaining, view repair. Repair Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*ONE OR BOTH REMOTE RADIO SWITCHES INOPERATIVE (IF EQUIPPED)

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE RADIO
CHECK OPERATION OF THE HORN
REMOTE RADIO SWITCH

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, attempt to communicate with the Radio. Was the DRB able to communicate with the Radio? Yes → Go To 2 No → Refer to the communication category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1.	All
2	Operate the horn from the horn button. **NOTE: This is to ensure the Horn/Radio Control MUX circuit is NOT open or shorted between the clockspring and the BCM.** Does the horn operate properly from the horn button? Yes → Repair the Horn/Radio Control MUX circuit or the Ground circuit for an open between the inoperative switch and the clockspring. If OK, replace the remote radio switch. Perform BODY VERIFICATION TEST - VER 1. No → Refer to the Ignition, Power and Accessory category and perform the appropriate symptom Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*CHIME INOPERATIVE AT ALL TIMES

POSSIBLE CAUSES
USE DRB TO ACTUATE CHIME
BODY CONTROL MODULE - CHIME INOPERATIVE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Close both doors. With the DRBIII®, actuate the Chime. Does the chime sound when actuated by the DRB? Yes → The chime operates as it should. Check other reasons for the chime being inoperative and select from the symptom list. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*CHIME INOPERATIVE WITH DRIVER SEAT BELT UNFASTENED

POSSIBLE CAUSES
SEAT BELT SWITCH STATUS ON DRBIII®
SEAT BELT SWITCH SHORTED
SEAT BELT SWITCH SENSE SHORT TO GROUND
INSTRUMENT CLUSTER - SEAT BELT SWITCH SHORTED

TEST	ACTION	APPLICABILITY
1	Ensure the drivers seat belt is unfastened. With the DRBIII®, select Electro Mech Cluster Input/Output. Turn the ignition on. Read the Seat Belt Sw status. Does the DRBIII display Seat Belt Sw: Closed Yes → Go To 2 No → Replace the Instrument Cluster. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Seat Belt Switch connector. With the DRBIII®, select Electro Mech Cluster Input/Output. Turn the ignition on. Read the seat Belt Sw status. Does the DRBIII display Seat Belt Sw: Closed Yes → Go To 3 No → Repair the Seat Belt switch pigtail wiring or replace the Buckle assembly. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Removed the Instrument Cluster from the instrument panel. Disconnect the Seat Belt Switch connector. Measure the resistance between ground and the Seat Belt Switch Sense circuit. Is the resistance below 100.0 ohms? Yes → Repair the Seat Belt Switch Sense wire for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	If there are no possible causes remaining, view repair. Repair Replace the Instrument Cluster. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***CHIME INOPERATIVE WITH EXTERIOR LIGHTS ON AND DRIVERS DOOR OPEN**

POSSIBLE CAUSES
OPEN HEADLAMP SWITCH OUTPUT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	The Driver's Door Ajar switch must be operational for the result of this test to be valid. The Key-In Ignition switch chime function must be operational for the result of this test to be valid. Turn the ignition off. Remove the Body Control Module from the Junction Block. Turn the headlamps on. Measure the voltage of the Headlamp Switch Output circuit in the Junction Block internal 12-way connector. Is the voltage above 10.0 volts? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Head Lamp Switch Output circuit for an open from the headlamp switch. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***CHIME INOPERATIVE WITH KEY-IN IGNITION AND DRIVER DOOR OPEN**

POSSIBLE CAUSES
OBSERVE THE KEY-IN IGNITION SWITCH STATUS
KEY-IN IGNITION SWITCH OPEN
KEY-IN IGNITION SWITCH GROUND CIRCUIT OPEN
KEY-IN IGNITION SWITCH SENSE CIRCUIT OPEN
BCM - INCORRECT KEY - IN IGNITION SWITCH STATUS

TEST	ACTION	APPLICABILITY
1	The door ajar switch must be operational for the result of this test to be valid. **NOTE: Ensure that the Key is still in the Ignition Switch.** With the DRBIII® enter Body Computer then Input Output and read the Key-In Ignition Switch status. Does the DRB display: KEY-IN IGN: CLOSED? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition on. Disconnect the Ignition Switch C3 harness connector. Connect a jumper between the Key-In Ignition Switch Sense circuit and the Ground circuit. With the DRBIII®, enter Body Computer then Input/Output and observe the Key-In Ignition Switch status. Does the DRBIII display Key-In Ign: Closed? Yes → Replace the Ignition Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Ignition Switch C3 harness connector. Turn all lights off. Measure the resistance between ground and the ground circuit in the ignition switch connector. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*CHIME INOPERATIVE WITH KEY-IN IGNITION AND DRIVER DOOR OPEN — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Ignition Switch C3 harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance of the Key-In Ignition Switch Sense circuit between the ignition switch connector and the BCM harness C1 connector . Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Key-In Ignition Switch Sense circuit for an open Perform BODY VERIFICATION TEST - VER 1.	All
5	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***CHIME SOUNDS WITH DRIVER SEAT BELT FASTENED**

POSSIBLE CAUSES
SEAT BELT SW STATUS WRONG-OPEN
SEAT BELT SWITCH OPEN
GROUND WIRE OPEN
SEAT BELT SW SEN OPEN
INSTRUMENT CLUSTER - SEAT BELT SENSE OPEN

TEST	ACTION	APPLICABILITY
1	Ensure the drivers seat belt is fastened. With the DRB III select: Electro Mech Cluster Input/Outputs. Turn the ignition on. Read the Seat Belt SW status. Does the DRB III show Seat Belt SW: CLOSED? Yes → Replace the Instrument Cluster. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Seat Belt Switch connector. Turn all lights off. Trip the door lock latch to turn the courtesy lamps off. Measure the resistance of the Ground circuit in the Seat Belt connector to ground. Is the resistance below 5.0 ohms? Yes → Go To 3 No → Repair the open ground wire. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Seat Belt Switch connector. Connect a jumper wire between Seat Belt Switch Sense CKT and the Ground CKT in the Seat Belt Switch connector. With the DRB III select: Electro Mech Cluster Input/Outputs. Turn the ignition on. Read the Seat Belt SW status. Does the DRB III show Seat Belt SW: CLOSED? Yes → Repair the Seat Belt switch pigtail wiring or replace the Buckle assembly. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Remove the Instrument Cluster from the instrument panel. Disconnect the Seat Belt Switch connector. Measure the resistance of the Seat Belt Switch Sense circuit between the Instrument Cluster connector and the Seat Belt Switch connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the open Seat Belt Switch Sense circuit. Perform BODY VERIFICATION TEST - VER 1.	All

*CHIME SOUNDS WITH DRIVER SEAT BELT FASTENED — Continued

TEST	ACTION	APPLICABILITY
5	If there are no possible causes remaining, view repair. Repair Replace the Instrument Cluster. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***CHIME SOUNDS WITH DRIVERS DOOR OPEN AND KEY REMOVED FROM IGNITION**

POSSIBLE CAUSES
KEY-IN IGNITION SWITCH STATUS WRONG
KEY-IN IGNITION SWITCH STATUS WRONG
KEY-IN IGNITION SW SENSE SHORT TO GROUND
BODY CONTROL MODULE - KEY-IN IGNITION SHORTED

TEST	ACTION	APPLICABILITY
1	Ensure all exterior lamps are off. With the DRB III select: Body Computer Input/Output. Remove the key from the ignition switch. Read the Key-In Ignition status. Does the DRB III show Key-In Ign: CLOSED? Yes → Go To 2 No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Ignition Switch C3 harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance of the Key-in Ignition Switch Sense circuit to ground. Is the resistance below 100.0 ohms? Yes → Repair the Key-in Ignition Switch Sense circuit to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Disconnect the Ignition Switch C3 connector. With the DRBIII® select: Body Computer Input/Output. Read the Key-In Ignition Status. Does the DRBIII® display Key-In Ign CLOSED? Yes → Go To 4 No → Replace the Ignition Switch. Perform BODY VERIFICATION TEST - VER 1.	All
4	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*VEHICLE SPEED WARNING CHIME PROBLEM

POSSIBLE CAUSES
INCORRECT COUNTRY CODE PROGRAMMED IN BCM
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Note: The vehicle speed warning chime is for Gulf Coast Countries only. With the DRBIII®, check the Body Control Module country code setting. Is the country code incorrect? Yes → Program the correct country code setting. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
ATC MESSAGES NOT RECEIVED

When Monitored and Set Condition:

ATC MESSAGES NOT RECEIVED

When Monitored: With the ignition in run, and the IOD fuse installed.

Set Condition: The BCM does not receive any messages from the Automatic Temperature Control (ATC) module for at least 18 seconds.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE AUTOMATIC TEMPERATURE CONTROL MODULE
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Automatic Temp Control. Was the DRB able to I/D or communicate with the ATC? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Cycle the ignition switch from off to on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
BATTERY POWER TO MODULE DISCONNECTED

When Monitored and Set Condition:

BATTERY POWER TO MODULE DISCONNECTED

When Monitored: With the ignition on.

Set Condition: The BCM receives ignition on voltage, but no battery power feed.

POSSIBLE CAUSES
VERIFYING ACTIVE DTC
FUSED B+ CIRCUIT - JUNCTION BLOCK
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Connect the DRB to the Data Link Connector. Turn the ignition on. With the DRB, erase BCM DTC's. Turn the ignition off then turn the ignition on. With the DRB, read BCM DTC's. Did this DTC reset? Yes → Go To 2 No → No problem found at this time. Use the wiring diagrams located in the service information to help isolate a possible intermittent wiring problem. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Remove the BCM from the Junction Block. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused B+ circuit in the Junction Block Body Control Module connector cavity 12. Is the test light illuminated? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
BOOTLOADER CHECKSUM FAILURE

When Monitored and Set Condition:

BOOTLOADER CHECKSUM FAILURE

When Monitored: At battery connect.

Set Condition: The BCM fails the bootloader checksum test.

POSSIBLE CAUSES
BOOTLOADER CHECKSUM FAILURE

TEST	ACTION	APPLICABILITY
1	Connect the DRB to the Data Link Connector. Turn the ignition on. With the DRB, erase BCM DTC's. Turn the ignition off then turn the ignition on. With the DRB, read BCM DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
EEPROM CHECKSUM FAILURE

When Monitored and Set Condition:

EEPROM CHECKSUM FAILURE

When Monitored: Continuously.

Set Condition: The BCM fails EEPROM checksum test.

POSSIBLE CAUSES
EEPROM CHECKSUM FAILURE

TEST	ACTION	APPLICABILITY
1	Connect the DRB to the Data Link Connector. Turn the ignition on. With the DRB, erase BCM DTC's. Turn the ignition off then turn the ignition on. With the DRB, read BCM DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
MIC MESSAGES NOT RECEIVED

When Monitored and Set Condition:

MIC MESSAGES NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Instrument Cluster (MIC) for at least 14 seconds.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE INSTRUMENT CLUSTER (MIC)
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Electro/Mech Cluster. Was the DRB able to I/D or communicate with the Instrument Cluster (MIC)? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
ORC MESSAGES NOT RECEIVED

When Monitored and Set Condition:

ORC MESSAGES NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Airbag Control Module (ORC) for at least 10 seconds.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE AIRBAG CONTROL MODULE (ORC)
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, attempt to communicate with the Airbag Control Module (ORC). Was the DRB able to I/D or communicate with the Airbag Control Module (ORC)? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
PCM MESSAGES NOT RECEIVED

When Monitored and Set Condition:

PCM MESSAGES NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Powertrain Control Module (PCM) for at least 12 seconds.

POSSIBLE CAUSES
VERIFYING ACTIVE DTC
PCM MESSAGES NOT RECEIVED
ATTEMPT TO COMMUNICATE WITH THE PCM
POWERTRAIN CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent open or shorted wiring condition. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition on. With the DRB, enter Body Computer, System Tests then PCM Monitor. Does the DRB display: PCM is active on BUS? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition on. With the DRB, attempt to communicate with the PCM. Was the DRB able to communicate with the PCM? Yes → Go To 4 No → Refer to the communication category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1.	All

PCM MESSAGES NOT RECEIVED — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the PCM harness connector. **NOTE: IF NGC, DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the PCM connector(special tool #8815 if NGC). Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Powertrain Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the PCM harness connector. **NOTE: IF NGC, DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Disconnect the BCM C3 harness connector. Measure the resistance of the PCI bus circuit between the PCM connector (from special tool #8815 if NGC) and the BCM C3 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

POST FAILURE

When Monitored and Set Condition:

POST FAILURE

When Monitored: At battery connect.

Set Condition: The BCM fails ROM checksum test.

POSSIBLE CAUSES
POST FAILURE

TEST	ACTION	APPLICABILITY
1	Connect the DRB to the Data Link Connector. Turn the ignition on. With the DRB, erase BCM DTC's. Turn the ignition off then turn the ignition on. With the DRB, read BCM DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
SKIM MESSAGES NOT RECEIVED

When Monitored and Set Condition:

SKIM MESSAGES NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Sentry Key Immobilizer Module (SKIM) for at least 12 seconds.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE SENTRY KEY IMMOBILIZER MODULE
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, attempt to communicate with the SKIM. Was the DRB able to I/D or communicate with the SKIM? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
TCM MESSAGES NOT RECEIVED

When Monitored and Set Condition:

TCM MESSAGES NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Transmission Control Module (TCM) for at least 18 seconds. Note: If NGC, the TCM is internal to the PCM.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE TCM
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Transmission. Was the DRB able to I/D or communicate with the TCM? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
TRAVELER MESSAGES NOT RECEIVED (CMTC)

When Monitored and Set Condition:

TRAVELER MESSAGES NOT RECEIVED (CMTC)

When Monitored: With the ignition on.

Set Condition: The BCM does not receive any messages from the Traveler (Compass/Mini Trip Computer) for at least 14 seconds.

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE TRAVELER (CMTC)
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Overhead Console. Was the DRB able to I/D or communicate with the Traveler (CMTC)? Yes → Go To 2 No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

***NO RESPONSE FROM ACM**

POSSIBLE CAUSES
CHECKING FOR VOLTAGE AT ACM
GROUND CIRCUIT OPEN
AIRBAG CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Ensure that the battery is fully charged. **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module harness connector (C2 connector on premium). Connect the appropriate Load Tool ACM Adapter to the ACM connector. Turn the ignition on and then reconnect the Battery. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output Run Circuit and the Fused Ignition Switch Output Run/Start Circuit. NOTE: One open circuit will not cause a NO RESPONSE condition. Is the test light illuminated on both circuits? Yes → Go To 2 No → Repair the Fused Ignition Switch Output Run and Fused Ignition Switch Output Run/Start circuits for an open. Replace the fuse(s) if necessary. Perform __AIRBAG VERIFICATION TEST - VER 1. **NOTE: When reconnecting airbag system components, the ignition must be turned off and the battery must be disconnected.**	All
2	**Ensure that the battery is fully charged.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module harness connector (C2 connector on premium). Connect the appropriate Load Tool ACM Adapter to the ACM connector. Using a 12-volt test light connected to 12-volts, probe the ground circuit. **NOTE: Make sure test light is connected to the Battery positive terminal.** Is the test light illuminated? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform __AIRBAG VERIFICATION TEST - VER 1. **When reconnecting Airbag system components, the ignition must be turned off and the battery must be disconnected.**	All

*NO RESPONSE FROM ACM — Continued

TEST	ACTION	APPLICABILITY
3	**Note: Ensure there is PCI bus communication with other modules. If not, refer to the PCI Bus Communication Failure symptom and repair as necessary.** **WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module harness connector (C2 connector on premium). Connect the appropriate Load Tool ACM Adapter to the ACM connector. Turn the ignition on and then reconnect the Battery. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the ACM connector. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Airbag Control Module in accordance with the service information. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Go To 4	All
4	**WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION OFF, DISCONNECT THE BATTERY AND WAIT TWO MINUTES BEFORE PROCEEDING.** Disconnect the Airbag Control Module harness connector (C2 connector on premium). Connect the appropriate Load Tool ACM Adapter to the ACM connector. Disconnect the BCM C2 harness connector. Measure the resistance of the PCI bus circuit between the ACM connector and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform __AIRBAG VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform __AIRBAG VERIFICATION TEST - VER 1.	All

Symptom:

***NO RESPONSE FROM AUTOMATIC TEMPERATURE CONTROL MODULE**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE BCM
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
GROUND CIRCUIT OPEN
AUTOMATIC TEMPERATURE CONTROL HEAD
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Body Computer. Was the DRB able to I/D or communicate with the BCM? Yes → Go To 2 No → Refer to the symptom list for problems related to no communication with the BCM. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Automatic Temperature Control Head harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open or short. Refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Automatic Temperature Control Head harness connector. Using a 12-volt test light connected to 12-volts, probe both ground circuits (cavities 1 and 3). Is the test light illuminated for both circuits? Yes → Go To 4 No → Repair the ground circuit(s) for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM AUTOMATIC TEMPERATURE CONTROL MODULE — Continued

TEST	ACTION	APPLICABILITY
4	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the Automatic Temperature Control Head harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII® select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the ATC Head connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Automatic Temperature Control Head in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the ATC Head harness connector. Disconnect the BCM C2 harness connector. Measure the resistance of the PCI bus circuit between the ATC Head connector and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***NO RESPONSE FROM BODY CONTROL MODULE**

POSSIBLE CAUSES
OPEN GROUND CIRCUITS
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	**NOTE: Make sure the DRB can communicate with other modules before proceeding, if not refer to the PCI Bus Communication Failure symptom.** Turn the ignition off. Disconnect the BCM C1, C2 and C3 harness connectors. **NOTE: Ensure all lights are turned off.** Using a 12-volt test light connected to 12-volts, probe each ground circuit. Is the test light illuminated for each circuit? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Ground circuit(s) for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*NO RESPONSE FROM CONTROLLER ANTILOCK BRAKE

POSSIBLE CAUSES
NO RESPONSE FROM CAB
CHECK JUNCTION BLOCK FUSE
GROUND CIRCUIT OPEN
OPEN FUSED IGNITION SWITCH OUTPUT CIRCUIT
CONTROLLER ANTILOCK BRAKE (CAB) MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **Note: As soon as one or more module communicates with the DRB, answer the question.** With the DRB, attempt to communicate with the Airbag Control Module. With the DRB, attempt to communicate with the Body Control Module (BCM). Was the DRB able to I/D or establish communications with either of the modules? Yes → Go To 2 No → Refer to the Communications category and perform the symptom PCI Bus Communication Failure. Perform ABS VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Remove and inspect fuse #4 in the junction block. Is the fuse open? Yes → Check the Fused Ignition Switch Output circuit for a short to ground, refer to the wiring diagrams located in the service information. Replace Fuse #4. Perform ABS VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the CAB harness connector. Using a 12-volt test light connected to 12-volts, probe both ground circuits. Is the test light illuminated for both circuits? Yes → Go To 4 No → Repair the ground circuit(s) for an open. Perform ABS VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM CONTROLLER ANTILOCK BRAKE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. **NOTE: Ensure fuse #4 is installed in the junction block.** Disconnect the CAB harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 5 No → Repair the Fused Ignition Switch Output circuit for an open. Perform ABS VERIFICATION TEST - VER 1.	All
5	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the CAB harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the CAB connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Controller Antilock Brake (CAB) in accordance with the service information. Perform ABS VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the CAB harness connector. Disconnect the BCM C3 harness connector. Measure the resistance of the PCI bus circuit between the CAB connector and the BCM C3 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform ABS VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform ABS VERIFICATION TEST - VER 1.	All

Symptom:

***NO RESPONSE FROM INSTRUMENT CLUSTER**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE BCM
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
FUSED B+ CIRCUIT OPEN
GROUND CIRCUIT OPEN
INSTRUMENT CLUSTER
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Body Computer. Was the DRB able to I/D or communicate with the BCM? Yes → Go To 2 No → Refer to the symptom list for problems related to no communication with the BCM. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open or short. Refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Using a 12-volt test light connected to ground, probe the Fused B+ circuit. Is the test light illuminated? Yes → Go To 4 No → Repair the Fused B+ circuit for an open or short. Refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM INSTRUMENT CLUSTER — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Instrument Cluster harness connector. **NOTE: Ensure all lights are turned off.** Using a 12-volt test light connected to 12-volts, probe each ground circuit. Is the test light illuminated for each circuit? Yes → Go To 5 No → Repair the Ground circuit(s) for an open. Refer to the wiring diagrams located in the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the Instrument Cluster harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus (MIC) circuit in the Instrument Cluster connector (cav 2). Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Instrument Cluster in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Disconnect the BCM C2 harness connector. Measure the resistance of the PCI bus circuit between the Instrument Cluster connector and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*NO RESPONSE FROM PCM (PCI BUS) - NGC

POSSIBLE CAUSES
PCM PCI NO RESPONSE
POWERTRAIN CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: As soon as one or more module communicates with the DRB, answer the question.** With the DRB, enter Body then Body Computer. With the DRB, enter Anti-Lock Brakes. With the DRB, enter Body then Electro/Mechanical Cluster (MIC). With the DRB, enter Passive Restraints then Airbag. Were you able to establish communications with any of the modules? Yes → Go To 2 No → Refer to symptom PCI Bus Communication Failure in the Communications category. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

*NO RESPONSE FROM PCM (PCI BUS) - NGC — Continued

TEST	ACTION	APPLICABILITY
2	With the DRB read the Powertrain DTC's. This is to ensure power and grounds to the PCM are operational. **NOTE: If the DRB will not read PCM DTC's, follow the NO RESPONSE TO PCM (PCM SCI only) symptom path.** Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII® select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the appropriate terminal of special tool #8815. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace and program the Powertrain Control Module in accordance with the Service Information. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Disconnect the BCM C3 harness connector. Measure the resistance of the PCI Bus circuit from the BCM C3 harness connector to the appropriate terminal of special tool #8815. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Repair the PCI Bus circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

Symptom:

*NO RESPONSE FROM PCM (PCI BUS) - SBEC

POSSIBLE CAUSES
PCM PCI NO RESPONSE
POWERTRAIN CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **NOTE: As soon as one or more module communicates with the DRB, answer the question.** With the DRB, enter Body then Body Computer. With the DRB, enter Body then Electro/Mechanical Cluster (MIC). Were you able to establish communications with any of the modules? Yes → Go To 2 No → Refer to symptom PCI Bus Communication Failure in the Communications category. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All
2	With the DRB read the Powertrain DTC's. This is to ensure power and grounds to the PCM are operational. **NOTE: If the DRB will not read PCM DTC's, follow the NO RESPONSE TO PCM (SCI only) symptom path.** Turn the ignition off. Disconnect the PCM C2 harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the PCM C2 connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace and program the Powertrain Control Module in accordance with the Service Information. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 3	All

*NO RESPONSE FROM PCM (PCI BUS) - SBEC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the PCM C2 harness connector. Disconnect the BCM C3 harness connector. Measure the resistance of the PCI bus circuit between the PCM C2 connector and the BCM C3 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Repair the PCI Bus circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

Symptom:

*NO RESPONSE FROM PCM (PCM SCI ONLY) - NGC

POSSIBLE CAUSES
CHECK PCM POWERS AND GROUNDS
PCM SCI TRANSMIT CIRCUIT SHORTED TO VOLTAGE
PCM SCI RECEIVE CIRCUIT SHORTED TO VOLTAGE
PCM SCI CIRCUITS SHORTED TOGETHER
PCM SCI TRANSMIT CIRCUIT SHORTED TO GROUND
PCM SCI RECEIVE CIRCUIT SHORTED TO GROUND
PCM SCI RECEIVE CIRCUIT OPEN
PCM SCI TRANSMIT CIRCUIT OPEN
POWERTRAIN CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Perform the symptom Checking PCM Power and Ground Circuits in the Driveability category. **NOTE: With the DRBIII® in the generic scan tool mode, attempt to communicate with the PCM.** **NOTE: If the DRBIII® can communicate with the PCM in the generic scan tool mode, it may not be necessary to perform this step.** Did the vehicle pass this test? Yes → Go To 2 No → Repair as necessary. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All
2	Turn the ignition off. Disconnect the DRBIII® from the DLC. Disconnect the PCM harness connectors. Turn the ignition on. Measure the voltage of the PCM SCI Transmit circuit at the Data Link harness connector (cav 7). Is the voltage above 1.0 volt? Yes → Repair the PCM SCI Transmit circuit for a short to voltage. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the DRBIII® from the DLC. Disconnect the PCM harness connectors. Turn the ignition on. Measure the voltage of the PCM SCI Receive circuit at the Data Link harness connector (cav 12). Is the voltage above 1.0 volt? Yes → Repair the PCM SCI Receive circuit for a short to voltage. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 4	All

*NO RESPONSE FROM PCM (PCM SCI ONLY) - NGC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the DRBIII® from the DLC. Disconnect the PCM harness connectors. Measure the resistance between the PCM SCI Transmit circuit and the PCM SCI Receive circuit at the Data Link harness connector (cavs 7 and 12). Is the resistance below 5.0 ohms? Yes → Repair the short between the PCM SCI Transmit and the PCM SCI Receive circuits. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the PCM harness connectors. Disconnect the DRBIII® from the DLC. Measure the resistance between ground and the PCM SCI Transmit circuit at the Data Link harness connector (cav 7). Is the resistance below 5.0 ohms? Yes → Repair the PCM SCI Transmit circuit for a short to ground. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRBIII® from the DLC. Measure the resistance between ground and the PCM SCI Receive circuit in the Data Link harness connector (cav 12). Is the resistance below 5.0 ohms? Yes → Repair the PCM SCI Receive circuit for a short to ground. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRBIII® from the DLC. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Measure the resistance of the PCM SCI Receive circuit from the Data Link harness connector (cav 12) to the appropriate terminal of special tool #8815. Is the resistance below 5.0 ohms? Yes → Go To 8 No → Repair the PCM SCI Receive circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

*NO RESPONSE FROM PCM (PCM SCI ONLY) - NGC — Continued

TEST	ACTION	APPLICABILITY
8	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRBIII® from the DLC. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Measure the resistance of the PCM SCI Transmit circuit from the Data Link harness connector (cav 7) to the appropriate terminal of special tool #8815. Is the resistance below 5.0 ohms? Yes → Go To 9 No → Repair the PCM SCI Transmit circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All
9	If there are no possible causes remaining, view repair. Repair Replace and program the Powertrain Control Module in accordance with the Service Information. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

Symptom:

*NO RESPONSE FROM PCM (SCI ONLY) - SBEC

POSSIBLE CAUSES
CHECK PCM POWERS AND GROUNDS
SCI TRANSMIT CIRCUIT SHORTED TO VOLTAGE
TRANSMISSION CONTROL MODULE
SCI RECEIVE CIRCUIT SHORTED TO VOLTAGE
SCI CIRCUITS SHORTED TOGETHER
SCI TRANSMIT CIRCUIT SHORTED TO GROUND
SCI RECEIVE CIRCUIT SHORTED TO GROUND
SCI RECEIVE CIRCUIT OPEN
SCI TRANSMIT CIRCUIT OPEN
POWERTRAIN CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Perform the symptom Checking PCM Power and Ground Circuits in the Driveability category. **NOTE: With the DRBIII® in the generic scan tool mode, attempt to communicate with the PCM.** **NOTE: If the DRBIII® can communicate with the PCM in the generic scan tool mode, it may not be necessary to perform this step.** Did the vehicle pass this test? Yes → Go To 2 No → Repair as necessary. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All
2	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRB from the DLC. Measure the resistance between ground and the SCI Transmit circuit. Is the resistance below 5.0 ohms? Yes → Go To 3 No → Go To 4	All
3	Turn the ignition off. Disconnect the TCM harness connector (if equipped). **NOTE: If vehicle is not equipped with a TCM, answer yes to the question.** Measure the resistance between ground and the SCI Transmit circuit. Is the resistance below 5.0 ohms? Yes → Repair the SCI Transmit circuit for a short to ground. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Replace the Transmission Control Module in accordance with the service information. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

*NO RESPONSE FROM PCM (SCI ONLY) - SBEC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the DRB from the DLC. Disconnect the PCM harness connector. Disconnect the TCM harness connector (if equipped). Turn the ignition on. Measure the voltage of the SCI Transmit circuit at the DLC connector (cav 7). Is the voltage above 1.0 volt? Yes → Repair the SCI Transmit circuit for a short to voltage. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the DRB from the DLC. Disconnect the PCM harness connector. Turn the ignition on. Measure the voltage of the SCI Receive circuit at the DLC connector (cav 6). Is the voltage above 1.0 volt? Yes → Repair the SCI Receive circuit for a short to voltage. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the DRB from the DLC. Disconnect the PCM harness connector. Measure the resistance between the SCI Transmit circuit and the SCI Receive circuit at the PCM connector. Is the resistance below 5.0 ohms? Yes → Repair the short between the SCI Transmit and the SCI Receive circuits. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRB from the DLC. Measure the resistance between ground and the SCI Receive circuit. Is the resistance below 5.0 ohms? Yes → Repair the SCI Receive circuit for a short to ground. Perform POWERTRAIN VERIFICATION TEST VER - 1. No → Go To 8	All
8	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRB from the DLC. Measure the resistance of the SCI Receive circuit between the PCM connector and the DLC. Is the resistance below 5.0 ohms? Yes → Go To 9 No → Repair the SCI Receive circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

*NO RESPONSE FROM PCM (SCI ONLY) - SBEC — Continued

TEST	ACTION	APPLICABILITY
9	Turn the ignition off. Disconnect the PCM harness connector. Disconnect the DRB from the DLC. Measure the resistance of the SCI Transmit circuit between the PCM connector and the DLC. Is the resistance below 5.0 ohms? Yes → Go To 10 No → Repair the SCI Transmit circuit for an open. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All
10	If there are no possible causes remaining, view repair. Repair Replace and program the Powertrain Control Module in accordance with the Service Information. Perform POWERTRAIN VERIFICATION TEST VER - 1.	All

Symptom:
*NO RESPONSE FROM RADIO

POSSIBLE CAUSES
NO RESPONSE FROM RADIO
REPLACE FUSE #14
RADIO SHORTED TO GROUND
FUSED IGNITION SWITCH OUTPUT CIRCUIT SHORTED TO GROUND
JUNCTION BLOCK SHORTED TO GROUND
OPEN FUSED IGNITION SWITCH OUTPUT CIRCUIT
OPEN FUSED B+ CIRCUIT
RADIO GROUND CIRCUIT OPEN
RADIO INTERNALLY OPEN
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **Note: As soon as one or more module communicates with the DRB, answer the question.** With the DRB, attempt to communicate with the Airbag Control Module. With the DRB, attempt to communicate with the Body Control Module (BCM). Was the DRB able to I/D or establish communications with either of the modules? Yes → Go To 2 No → Refer to the Communications category and perform the symptom PCI Bus Communication Failure. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Remove and inspect fuse #14 in the junction block. Is the fuse open? Yes → Go To 3 No → Go To 6	All
3	Turn the ignition off. Replace Fuse #14 in the junction block. Turn the ignition on. Turn the Radio on. Remove and inspect Fuse #14 in the junction block. Is the fuse open? Yes → Go To 4 No → Check the Fused Ignition Switch Output circuit for an intermittent short to ground, refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM RADIO — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Replace Fuse #14 in the junction block. Disconnect the Radio C1 harness connector. Turn the ignition on. Remove and inspect fuse #14 in the junction block. Is the fuse open? Yes → Go To 5 No → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Radio C1 harness connector. Disconnect the Junction Block C7 harness connector. Measure the resistance between ground and the Fused Ignition Switch Output circuit. Is the resistance below 5.0 ohms? Yes → Repair the Fused Ignition Switch Output circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. **NOTE: Ensure fuse #14 is installed in the junction block.** Disconnect the Radio C1 harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 7 No → Repair the Fused Ignition Switch Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Radio C1 harness connector. Using a 12-volt test light connected to ground, probe the Fused B+ circuit. Is the test light illuminated? Yes → Go To 8 No → Repair the Fused B+ circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the Radio C1 harness connector. Using a 12-volt test light connected to 12-volts, probe the ground circuit. Is the test light illuminated? Yes → Go To 9 No → Repair the ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM RADIO — Continued

TEST	ACTION	APPLICABILITY
9	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the Radio C1 harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the Radio connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Radio. Perform BODY VERIFICATION TEST - VER 1. No → Go To 10	All
10	Disconnect the Radio C1 harness connector. Disconnect the BCM C2 harness connector. Measure the resistance of the PCI bus circuit between the Radio connector and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***NO RESPONSE FROM SENTRY KEY IMMOBILIZER MODULE**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE BCM
GROUND CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
FUSED B(+) CIRCUIT OPEN
SENTRY KEY IMMOBILIZER MODULE (SKIM)
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Body Computer. Was the DRB able to I/D or communicate with the BCM? Yes → Go To 2 No → Refer to the symptom list for problems related to no communication with the BCM. Perform SKIS VERIFICATION.	All
2	Turn the ignition off. Disconnect the SKIM harness connector. Using a 12-volt test light connected to 12-volts, probe the ground circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform SKIS VERIFICATION.	All
3	Turn the ignition off. Disconnect the SKIM harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 4 No → Repair the Fused Ignition Switch Output circuit for an open. Refer to the wiring diagrams in the service information. Perform SKIS VERIFICATION.	All

*NO RESPONSE FROM SENTRY KEY IMMOBILIZER MODULE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the SKIM harness connector. Using a 12-volt test light connected to ground, probe the Fused B(+) circuit. Is the test light illuminated? Yes → Go To 5 No → Repair the Fused B+ circuit for an open. Refer to the wiring diagrams in the service information. Perform SKIS VERIFICATION.	All
5	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the SKIM harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the SKIM connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Sentry Key Immobilizer Module (SKIM) in accordance with the service information. Perform SKIS VERIFICATION. No → Go To 6	All
6	Turn the ignition off. Disconnect the SKIM harness connector. Disconnect the BCM C2 harness connector. Measure the resistance of the PCI bus circuit between the SKIM connector and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform SKIS VERIFICATION. No → Repair the PCI Bus circuit for an open. Perform SKIS VERIFICATION.	All

Symptom:

***NO RESPONSE FROM TRANSMISSION CONTROL MODULE - EATX**

POSSIBLE CAUSES
NO RESPONSE FROM TRANSMISSION CONTROL MODULE
FUSED IGNITION SWITCH OUTPUT (RUN/ST) CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT (START) CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT (START) CIRCUIT SHORT
FUSED B(+) CIRCUIT OPEN
GROUND CIRCUIT(S) OPEN
TRANSMISSION CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, attempt to communicate with the Powertrain Control Module (PCM). With the DRB, attempt to communicate with the Body Control Module (BCM). Was the DRB able to I/D or establish communications with both of the modules? Yes → Go To 2 No → Refer to the Communications category and perform the appropriate symptom. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the TCM harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output (Run/St) circuit. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output (Run/St) circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - EATX — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the TCM harness connector. Remove the starter relay from the PDC. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output (Start) circuit. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Observe the test light while momentarily turning the ignition switch to the Start position. Is the test light illuminated? Yes → Go To 4 No → Repair the Fused Ignition Switch Output (Start) circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All
4	Turn the ignition off to the lock position. Disconnect the TCM harness connector. With a voltmeter in the millivolt scale, measure the voltage of the Fused Ignition Switch Output (Start) circuit. **NOTE: A no response condition can exist if voltage is present on this circuit with the ignition switch in any position except for the Start position.** **NOTE: Voltage up to .080 millivolts can cause this condition.** **NOTE: Check for after market components that could cause this condition.** Perform this step with the Ignition Switch in every position except for the Start position. Is any voltage present? Yes → Repair the Fused Ignition Switch Output (Start) circuit for a short to voltage. Refer to the wiring diagrams located in the Service Information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1. No → Go To 5 **Note: Reinstall the original Starter Relay.**	All
5	Turn the ignition off. Disconnect the TCM harness connector. Using a 12-volt test light connected to ground, probe the Fused B(+) circuit. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the test light illuminated? Yes → Go To 6 No → Repair the Fused B(+) circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - EATX — Continued

TEST	ACTION	APPLICABILITY
6	Turn the ignition off. Disconnect the TCM harness connector. Using a 12-volt test light connected to 12-volts, probe each ground circuit in the TCM connector. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the light illuminated at all ground circuits? Yes → Go To 7 No → Repair the Ground circuit(s) for an open. Check the main ground connection to engine block and/or chassis. Refer to the wiring diagrams located in the Service Information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All
7	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the TCM harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the TCM connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Transmission Control Module in accordance with the service information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1. No → Go To 8	All
8	Disconnect the TCM harness connector. Disconnect the BCM C3 harness connector. Measure the resistance of the PCI bus circuit between the TCM connector and the BCM C3 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform 41TE TRANSMISSION VERIFICATION TEST - VER 1.	All

Symptom:

*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - NGC

POSSIBLE CAUSES
NO RESPONSE FROM TRANSMISSION CONTROL MODULE
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
FUSED B(+) CIRCUIT OPEN
GROUND CIRCUIT(S) OPEN
POWERTRAIN CONTROL MODULE
PCI BUS CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. **Note: As soon as one or more module communicates with the DRB, answer the question.** With the DRB, attempt to communicate with the Instrument Cluster. With the DRB, attempt to communicate with the Body Control Module (BCM). Was the DRB able to I/D or establish communications with both of the modules? Yes → Go To 2 No → Refer to the Communications category and perform the appropriate symptom. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuits (cavs 11 and 12) in the appropriate terminal of special tool #8815. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the test light illuminated for both circuits? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - NGC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Using a 12-volt test light connected to ground, probe the Fused B(+) circuit in the appropriate terminal of special tool #8815. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the test light illuminated? Yes → Go To 4 No → Repair the Fused B(+) circuit for an open. Refer to the wiring diagrams located in the Service Information. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Using a 12-volt test light connected to 12-volts, probe each ground circuit in the appropriate terminal of special tool #8815. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Is the light illuminated at all ground circuits? Yes → Go To 5 No → Repair the Ground circuit(s) for an open. Check the main ground connection to engine block and/or chassis. Refer to the wiring diagrams located in the Service Information. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM TRANSMISSION CONTROL MODULE - NGC — Continued

TEST	ACTION	APPLICABILITY
5	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII® select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the appropriate terminal of special tool #8815. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace and program the Powertrain Control Module in accordance with the service information. WITH THE DRBIII® PERFORM QUICK LEARN AND REPROGRAM PINION FACTOR. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the PCM harness connectors. **CAUTION: DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.** Disconnect the BCM C3 harness connector. Measure the resistance of the PCI Bus circuit from the BCM C3 harness connector to the appropriate terminal of special tool #8815. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module in accordance with the service information. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform 40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1.	All

Symptom:

***NO RESPONSE FROM TRAVELER (CMTC)**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE BCM AND THE MIC
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
FUSED B+ CIRCUIT OPEN
GROUND CIRCUIT OPEN
COMPASS/MINI TRIP COMPUTER (CMTC)
PCI BUS CIRCUIT OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, enter Body then Body Computer. With the DRB, enter Body then Electro/Mech Cluster. Was the DRB able to I/D or communicate with the BCM and the MIC? Yes → Go To 2 No → Refer to the symptom list for problems related to no communication with the BCM or the MIC. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Compass/Mini Trip Computer harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open or short. Refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Compass/Mini Trip Computer harness connector. Using a 12-volt test light connected to ground, probe the Fused B+ circuit. Is the test light illuminated? Yes → Go To 4 No → Repair the Fused B+ circuit for an open or short. Refer to the wiring diagrams in the service information. Perform BODY VERIFICATION TEST - VER 1.	All

*NO RESPONSE FROM TRAVELER (CMTC) — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Compass/Mini Trip Computer harness connector. Using a 12-volt test light connected to 12-volts, probe the ground circuit. Is the test light illuminated? Yes → Go To 5 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	**Note: Ensure there is PCI Bus communication with other modules on the vehicle before proceeding. If not, refer to the symptom list from the menu and repair as necessary.** Disconnect the Compass/Mini Trip Computer harness connector. Use Scope input cable CH7058, Cable to Probe adapter CH7062, and the red and black test probes. Connect the scope input cable to the channel one connector on the DRB. Attach the red and black leads and the cable to probe adapter to the scope input cable. With the DRBIII®, select Pep Module Tools. Select lab scope. Select Live Data. Select 12 volt square wave. Press F2 for Scope. Press F2 and use the down arrow to set voltage range to 20 volts. Press F2 again when complete. Connect the Black lead to the chassis ground. Connect the Red lead to the PCI Bus circuit in the CMTC connector. Turn the ignition on. Observe the voltage display on the DRB Lab Scope. Does the voltage pulse from 0 to approximately 7.5 volts? Yes → Replace the Compass/Mini Trip Computer in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Compass/Mini Trip Computer harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance of the PCI Bus circuit between the CMTC connector and the Instrument Cluster connector (cav 3). Is the resistance below 5.0 ohms? Yes → Replace the Instrument Cluster in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*PCI BUS COMMUNICATION FAILURE

POSSIBLE CAUSES
WIRING HARNESS INTERMITTENT
OPEN PCI BUS CIRCUIT AT THE DATA LINK CONNECTOR (DLC)
HIGH VOLTAGE ON THE PCI BUS CIRCUITS AT THE BCM CONNECTORS
MODULE (PCI BUS SHORT TO VOLTAGE)
PCI BUS CIRCUIT SHORTED TO VOLTAGE
LOW RESISTANCE TO GROUND ON THE PCI BUS CIRCUITS AT THE BCM CONNECTORS
MODULE (PCI BUS SHORT TO GROUND)
PCI BUS CIRCUIT SHORTED TO GROUND

TEST	ACTION	APPLICABILITY
1	**Note: Determine which modules this vehicle is equipped with before beginning.** **Note: When attempting to communicate with any of the modules on this vehicle, the DRB will display 1 of 2 different communication errors: a NO RESPONSE message or a BUS +/- SIGNALS OPEN message.** Turn the ignition on. Using the DRB, attempt to communicate with the following control modules: Body Control Module (BCM) Instrument Cluster (MIC) Airbag Control Module Controller Antilock Brake (CAB) Was the DRB able to communicate with one or more Module(s)? Yes → Go To 2 No → Go To 3	All
2	Turn the ignition off. **Note: Visually inspect the related wiring harness. Look for any chafed, pierced, pinched, or partially broken wires.** **Note: Visually inspect the related wire harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **Note: If the DRB can not communicate with a single module, refer to the category list for the related symptom.** Were any problems found? Yes → Repair wiring harness/connectors as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

*PCI BUS COMMUNICATION FAILURE — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the BCM C2 harness connector. Disconnect the DRB from the Data Link Connector (DLC). Measure the resistance of the PCI Bus circuit between the Data Link Connector (DLC) and the BCM C2 connector. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
4	**NOTE: Reconnect the BCM C2 harness connector.** Turn the ignition on. Measure the voltage of the PCI Bus circuit at the Data Link Connector (DLC). Is the voltage above 7.0 volts? Yes → Go To 5 No → Go To 7	All
5	**Note: Determine which modules this vehicle is equipped with before beginning.** Turn the ignition off. Disconnect the BCM C2 and C3 harness connectors. Turn the ignition on. Measure the voltage of each PCI Bus circuit at the BCM C2 and C3 connectors. Is the voltage steadily above 7.0 volts for any measurement? Yes → Go To 6 No → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. Disconnect the module that corresponds to the PCI Bus circuit that measured steadily above 7.0 volts. Turn the ignition on. **NOTE: If the PCI Bus circuit for the Radio was above 7.0 volts and is equipped with a CD Changer, disconnect the CD Changer before the Radio.** **NOTE: If the PCI Bus circuit for the Instrument Cluster (MIC) was above 7.0 volts and is equipped with a Compass/Mini Trip Computer (CMTC), disconnect the CMTC before the MIC.** Measure the voltage of the PCI Bus circuit that previously measured above 7.0 volts. Is the voltage steadily above 7.0 volts with the module disconnected? Yes → Repair the PCI Bus circuit that measured over 7.0 volts for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Replace the module that caused the short to voltage on the PCI Bus circuit. Perform BODY VERIFICATION TEST - VER 1.	All

*PCI BUS COMMUNICATION FAILURE — Continued

TEST	ACTION	APPLICABILITY
7	**Note: Determine which modules this vehicle is equipped with before beginning.** Turn the ignition off. Disconnect the negative battery cable. Disconnect the BCM C2 and C3 harness connectors. Measure the resistance between ground and each of the PCI Bus circuits at the BCM C2 and C3 connectors. Is the resistance below 1000.0 ohms for any of the measurements? Yes → Go To 8 No → Replace the Body Control Module in accordance with the service information. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the negative battery cable. Disconnect the module that corresponds to the PCI Bus circuit that resistance measured below 1000.0 ohms. **NOTE: If the PCI Bus circuit for the Radio was below 1000.0 ohms and is equipped with a CD Changer, disconnect the CD Changer before the Radio.** **NOTE: If the PCI Bus circuit for the Instrument Cluster (MIC) was below 1000.0 ohms and is equipped with a Compass/Mini Trip Computer (CMTC), disconnect the CMTC before the MIC.** Measure the resistance between ground and the PCI Bus circuit that previously measured below 1000.0 ohms. Is the resistance below 1000.0 ohms with the module disconnected? Yes → Repair the PCI Bus circuit that resistance measured below 1000.0 ohms for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the module that caused the short to ground on the PCI Bus circuit. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
BCM MESSAGE NOT RECEIVED

When Monitored and Set Condition:

BCM MESSAGE NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Compass/Mini Trip Computer (CMTC) does not receive messages from the BCM.

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
COMPASS/MINI TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, attempt to communicate with the BCM. Was the DRBIII® able to I/D or communicate with the BCM? Yes → Go To 2 No → Refer to the Communication category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRBIII®, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRBIII®, read DTC's. Did this DTC reset? Yes → Replace the Compass/Mini Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent open or shorted wiring condition. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
COMPASS FAILURE

POSSIBLE CAUSES
PCM MESSAGE NOT RECEIVED
COMPASS/MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, verify that no PCM communication failures are present in the CMTC. Is there a PCM communication failure present? Yes → Refer to PCM MEASSAGE NOT RECEIVED before proceeding. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Perform the Compass/Mini-Trip Computer Self Test. Turn the ignition off. Press and hold the Step and the Compass/Temp buttons. Turn the ignition on. **NOTE: The Compass/Mini-Trip Computer Self Test can also be initiated using the DRBIII®.** During the Self Test the Compass/Mini-Trip Computer will perform the following checks: Illuminate all VF display segments Check the CMTC memory, Communications, and Compass internal Check the CMTC/UGDO communications (if equipped) Display Pass, Fail, Bus, Bus 1, or Bus 2 when complete. Did the Compass Mini-Trip Computer display ″Fail″? Yes → Replace the Compass/Mini-Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Move the vehicle to an area away from any large metal objects or overhead power lines. Attempt to calibrate the compass. Turn the ignition on. Press and hold the STEP and US/M buttons at the same time until the CAL indicator begins to flash then release. Drive the vehicle in 3 complete 360 degree circles, at less than 5 MPH (8 KPH). The CAL indicator should turn off. Did the CAL indicator turn OFF? Yes → Test Complete. No → Replace the Compass/Mini-Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

INTERNAL FAILURE

POSSIBLE CAUSES
COMPASS/MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, erase the DTC. With the DRBIII®, perform the Compass/Mini-Trip Computer Self Test. With the DRBIII®, read DTCs. Did the DTC reset? Yes → Replace the Compass/Mini Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
PCM MESSAGE NOT RECEIVED

When Monitored and Set Condition:

PCM MESSAGE NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Compass/Mini Trip Computer (CMTC) does not receive messages from the PCM.

POSSIBLE CAUSES
INTERMITTENT CONDITION
DTC PRESENT
COMPASS/MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	With the DRB, erase DTC's. Turn the ignition on and wait approximately 1 minute. With the DRB, read DTC's. Did this DTC reset? Yes → Go To 2 No → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent open or shorted wiring condition. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition on. With the DRB, enter Body Computer, System Tests then PCM Monitor. Does the DRB display: PCM is active on BUS? Yes → Replace the Compass/Mini-Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Refer to the Communication category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

***AVERAGE FUEL ECONOMY INOPERATIVE OR WRONG**
***DISTANCE TO EMPTY INOPERATIVE OR WRONG**
***ELAPSED TIME INOPERATIVE OR WRONG**
***TRIP ODOMETER INOPERATIVE OR WRONG**

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be *AVERAGE FUEL ECONOMY INOPERATIVE OR WRONG.

POSSIBLE CAUSES
COMPASS MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Diagnose and repair any BCM, or COMMUNICATION DTCs before proceeding** If all the possible causes above are operating correctly, view repair. Repair Replace the Compass Mini-Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*COMPASS/MINI-TRIP COMPUTER INOPERATIVE

POSSIBLE CAUSES
FUSED B(+) CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
GROUND CIRCUIT OPEN
COMPASS MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Diagnose and repair any BCM, PCM, or COMMUNICATION DTCs before proceeding.** Turn the ignition off. Disconnect the Compass/Mini-Trip Computer harness connector. Measure the voltage between the Fused B+ circuit and ground. Is the voltage above 10.5 volts? Yes → Go To 2 No → Repair the Fused B(+) circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Compass/Mini-Trip Computer harness connector. Turn the ignition on. Measure the voltage between the Fused Ignition Switch Output circuit and ground. Is the voltage below 10.5 volts? Yes → Repair the Fused Ignition Switch Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Compass/Mini-Trip Computer harness connector. Measure the resistance between ground and the CMTC ground circuit. Is the resistance above 5.0 ohms? Yes → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Compass Mini-Trip Computer in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***OUTSIDE TEMPERATURE DISPLAY INACCURATE OR INOPERATIVE**

POSSIBLE CAUSES
AMBIENT TEMPERATURE SENSOR
COMPASS/MINI-TRIP COMPUTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the CMTC is communicating on the PCI Bus before proceeding with this test.** **NOTE: The Ambient Temperature Sensor is hardwired to the PCM. Diagnose and repair any PCM DTCs before proceeding with this test.** Turn the ignition off. Disconnect the Ambient Temperature Sensor harness connector. Measure the resistance of the Ambient Temperature Sensor using the following temperature/resistance values: 10°C (50°F) Sensor Resistance = 17.99 - 21.81 Kilohms 20°C (68°F) Sensor Resistance = 11.37 - 13.61 Kilohms 25°C (77°F) Sensor Resistance = 9.12 - 10.88 Kilohms 30°C (86°F) Sensor Resistance = 7.37 - 8.75 Kilohms 40°C (104°F) Sensor Resistance = 4.90 - 5.75 Kilohms 50°C (122°F) Sensor Resistance = 3.33 - 3.88 Kilohms Is the Ambient Temperature Sensor resistance measurement between the min/max specifications? Yes → Test Complete. No → Replace the Ambient Temperature Sensor. NOTE: After any repair for an Ambient Temperature Sensor problem, the vehicle must be driven over 3 miles above 25 MPH to update the CMTC display. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DECKLID AJAR CIRCUIT OPEN**

POSSIBLE CAUSES
DECKLID RELEASE SOLENOID/AJAR SWITCH CASE GROUND OPEN
INTERMITTENT CONDITION
DECKLID RELEASE SOLENOID/AJAR SWITCH
DECKLID AJAR SWITCH SENSE CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Open the Decklid. With the DRBIII® in Inputs/Outputs, read the DECKLID AJAR SW state. Does the DRBIII® display CLOSED? Yes → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Decklid Ajar switch connector. Using a 12-volt Test Light connected to 12-volts, test the Case Ground for continuity. Does the light illuminate? Yes → Go To 3 No → Repair the Case Ground for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Decklid Ajar Switch connector. With the DRBIII® in Inputs/Outputs, read the DECKLID AJAR SW state. Connect a jumper wire between Sense circuit and body ground. Does the DRBIII® display DECKLID AJAR SW: CLOSED? Yes → Replace the Decklid Release Solenoid/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Decklid Ajar Switch harness connector. Measure the resistance of the Sense circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Decklid Ajar Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DECKLID AJAR CIRCUIT SHORTED TO GROUND**

POSSIBLE CAUSES
DECKLID RELEASE SOLENOID/AJAR SWITCH SHORTED TO GROUND
DECKLID AJAR SWITCH SENSE CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the DECKLID AJAR SW state. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. With the DRBIII® in Inputs/Outputs, read the DECKLID AJAR SW state. Did the Switch State change from CLOSED to OPEN? Yes → Replace the Decklid Release Solenoid/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Body Control Module C4 harness connector. Disconnect the Decklid Ajar Switch harness connector. Using a 12-volt Test Light connected to 12-volts, test the Sense circuit for a short to ground. Does the Test Light illuminate? Yes → Repair the Decklid Ajar Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DRIVER DOOR AJAR CIRCUIT OPEN**

POSSIBLE CAUSES
DRIVER DOOR AJAR SWITCH GROUND CIRCUIT OPEN
INTERMITTENT CONDITION
DRIVER DOOR LOCK MOTOR/AJAR SWITCH
DRIVER DOOR AJAR SWITCH SENSE CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Open the driver door. With the DRBIII® in Inputs/Outputs, read the DRV DR AJAR SW state. Does the DRBIII® display CLOSED? Yes → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Driver Door Lock Motor/Ajar switch connector. Using a 12-volt Test Light connected to 12-volts, test the Ground circuit for continuity. Does the light illuminate? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Driver Door Lock Motor/Ajar Switch connector. With the DRBIII® in Inputs/Outputs, read the DRV DR AJAR SW state. Connect a jumper wire between Sense circuit and the Ground circuit. Does the DRBIII® display DRV DR AJAR SW: CLOSED? Yes → Replace the Driver Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Driver Door Lock Motor/Ajar Switch harness connector. Measure the resistance of the Sense circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Driver Door Ajar Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DRIVER DOOR AJAR CIRCUIT SHORTED TO GROUND**

POSSIBLE CAUSES
DRIVER DOOR LOCK MOTOR/AJAR SWITCH SHORTED TO GROUND
DRIVER DOOR AJAR SWITCH SENSE CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the DRV DR AJAR SW state. Disconnect the Driver Door Lock Motor/Ajar Switch harness connector. With the DRBIII® in Inputs/Outputs, read the DRV DR AJAR SW state. Does the Switch State change from CLOSED to OPEN? Yes → Replace the Driver Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Body Control Module C4 harness connector. Disconnect the Driver Door Lock Motor/Ajar Switch harness connector. Using a 12-volt Test Light connected to 12-volts, test the Sense circuit for a short to ground. Does the Test Light illuminate? Yes → Repair the Driver Door Ajar Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***LEFT REAR DOOR AJAR CIRCUIT OPEN**

POSSIBLE CAUSES
INTERMITTENT CONDITION
LEFT REAR DOOR AJAR SWITCH GROUND CIRCUIT OPEN
LEFT REAR DOOR LOCK MOTOR/AJAR SWITCH
LEFT REAR DOOR AJAR SWITCH SENSE CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Open the left rear door. With the DRBIII® in Inputs/Outputs, read the LR DR AJAR SW state. Does the DRBIII® display CLOSED? Yes → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Left Rear Door Lock Motor/Ajar switch connector. Using a 12-volt Test Light connected to 12-volts, test the Ground circuit for continuity. Does the light illuminate? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Left Rear Door Lock Motor/Ajar Switch connector. With the DRBIII® in Inputs/Outputs, read the LR DR AJAR SW state. Connect a jumper wire between the Sense circuit and the Ground circuit. Does the DRBIII® display LR DR AJAR SW: CLOSED? Yes → Replace the Left Rear Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Left Rear Door Lock Motor/Ajar Switch harness connector. Measure the resistance of the Sense circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Left Rear Door Ajar Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*LEFT REAR DOOR AJAR CIRCUIT SHORTED TO GROUND

POSSIBLE CAUSES
LEFT REAR DOOR LOCK MOTOR/AJAR SWITCH SHORTED TO GROUND
LEFT REAR DOOR AJAR SWITCH SENSE CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the LR DR AJAR SW state. Disconnect the Left Rear Door Lock Motor/Ajar Switch harness connector. With the DRBIII® in Inputs/Outputs, read the LR DR AJAR SW state. Does the Switch State change from CLOSED to OPEN? Yes → Replace the Left Rear Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Body Control Module C4 harness connector. Disconnect the Left Rear Door Lock Motor/Ajar Switch harness connector. Using a 12-volt Test Light connected to 12-volts, test the Sense circuit for a short to ground. Does the Test Light illuminate? Yes → Repair the Left Rear Door Ajar Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*PASSENGER DOOR AJAR CIRCUIT OPEN

POSSIBLE CAUSES
INTERMITTENT CONDITION
PASSENGER DOOR AJAR SWITCH GROUND CIRCUIT OPEN
PASSENGER DOOR LOCK MOTOR/AJAR SWITCH
PASSENGER DOOR AJAR SWITCH SENSE CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Open the passenger door. With the DRBIII® in Inputs/Outputs, read the PAS DR AJAR SW state. Does the DRBIII® display CLOSED? Yes → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Passenger Door Lock Motor/Ajar switch connector. Using a 12-volt Test Light connected to 12-volts, test the Ground circuit for continuity. Does the light illuminate? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Passenger Door Lock Motor/Ajar Switch connector. With the DRBIII® in Inputs/Outputs, read the PAS DR AJAR SW state. Connect a jumper wire between the Sense circuit and the Ground circuit. Does the DRBIII® display PAS DR AJAR SW: CLOSED? Yes → Replace the Passenger Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Passenger Door Lock Motor/Ajar Switch harness connector. Measure the resistance of the Sense circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Passenger Door Ajar Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***PASSENGER DOOR AJAR CIRCUIT SHORTED TO GROUND**

POSSIBLE CAUSES
PASSENGER DOOR LOCK MOTOR/AJAR SWITCH SHORTED TO GROUND
PASSANGER FRONT DOOR AJAR SWITCH SENSE CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the PAS DR AJAR SW state. Disconnect the Passenger Door Lock Motor/Ajar Switch harness connector. With the DRBIII® in Inputs/Outputs, read the PAS DR AJAR SW state. Does the Switch State change from CLOSED to OPEN? Yes → Replace the Passenger Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Body Control Module C4 harness connector. Disconnect the Passenger Door Lock Motor/Ajar Switch harness connector. Using a 12-volt Test Light connected to 12-volts, test the Sense circuit for a short to ground. Does the Test Light illuminate? Yes → Repair the Passenger Door Ajar Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***RIGHT REAR DOOR AJAR CIRCUIT OPEN**

POSSIBLE CAUSES
INTERMITTENT CONDITION
RIGHT REAR DOOR AJAR SWITCH GROUND CIRCUIT OPEN
RIGHT REAR DOOR LOCK MOTOR/AJAR SWITCH
RIGHT REAR DOOR AJAR SWITCH SENSE CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Open the right rear door. With the DRBIII® in Inputs/Outputs, read the RR DR AJAR SW state. Does the DRBIII® display CLOSED? Yes → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Right Rear Door Lock Motor/Ajar switch connector. Using a 12-volt Test Light connected to 12-volts, test the Ground circuit for continuity. Does the light illuminate? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Right Rear Door Lock Motor/Ajar Switch connector. With the DRBIII® in Inputs/Outputs, read the RR DR AJAR SW state. Connect a jumper wire between the Sense circuit and the Ground circuit. Does the DRBIII® display RR DR AJAR SW: CLOSED? Yes → Replace the Right Rear Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Right Rear Door Lock Motor/Ajar Switch harness connector. Measure the resistance of the Sense circuit between the BCM C4 connector and the Door Lock Motor/Ajar Switch connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Right Rear Door Ajar Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***RIGHT REAR DOOR AJAR CIRCUIT SHORTED TO GROUND**

POSSIBLE CAUSES
RIGHT REAR DOOR LOCK MOTOR/AJAR SWITCH SHORTED TO GROUND
RIGHT REAR DOOR AJAR SWITCH SENSE CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the RR DR AJAR SW state. Disconnect the Right Rear Door Lock Motor/Ajar Switch harness connector. With the DRBIII® in Inputs/Outputs, read the RR DR AJAR SW state. Does the Switch State change from CLOSED to OPEN? Yes → Replace the Right Rear Door Lock Motor/Ajar Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Disconnect the Body Control Module C4 harness connector. Disconnect the Right Rear Door Lock Motor/Ajar Switch harness connector. Using a 12-volt Test Light connected to 12-volts, test the Sense circuit for a short to ground. Does the Test Light illuminate? Yes → Repair the Right Rear Door Ajar Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***HEATED SEAT RELAY NOT ENERGIZED WITH IGNITION ON**

POSSIBLE CAUSES
HEATED SEAT RELAY
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
HEATED SEAT RELAY CONTROL WIRE
BODY CONTROL MODULE
PCM NOT ACTIVE ON THE BUS

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Body System Test read the PCM status. Is the PCM active on the BUS? Yes → Go To 2 No → Refer to symptom No Response to PCM in the Communication category. Perform BODY VERIFICATION TEST - VER 1.	All
2	Remove the Heated Seat Relay from the Power Distribution Center. Turn the ignition on. Using a 12-volt test light connected to ground, check the Fused Ignition Switch Output circuit cavity 67 of the relay socket. Does the test light illuminate brightly? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Install a known good relay in place of the Heated Seat Relay. Does the system now operate correctly? Yes → Replace the Heated Seat Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Remove the Heated Seat Relay from the Power Distribution Center. Disconnect the Body Control Module C3 connector. Measure the resistance of the Heated Seat Relay Control circuit between the Heated Seat Relay connector and the Body Control Module C3 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Heated Seat Relay Control wire for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH AUTOMATIC TEMP CONTROL)**

POSSIBLE CAUSES
JUNCTION BLOCK FUSE 15
PDC FUSE 6
REAR WINDOW DEFOGGER RELAY OUTPUT CIRCUIT OPEN
RELATED HVAC DTC'S
REAR WINDOW DEFOGGER RELAY
REAR WINDOW DEFOGGER RELAY
REAR DEFOGGER SWITCH OPERATION
REAR WINDOW DEFOGGER GRID OPEN
FUSED B(+) CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
REAR WINDOW DEFOGGER RELAY CONTROL CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the Automatic Temperature Control Module DTC's. Are there any related HVAC DTC's present? Yes → Refer to the symptom list for related DTC's. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	With the DRBIII® in ATC Inputs/Outputs, read the EBL sw state while toggling the Rear Defogger button. Does the EBL Switch state change when the switch is depressed? Yes → Go To 3 No → Replace the Automatic Temperature Control Head. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition on. Turn the Rear Window Defogger on. Using a 12 volt test light, check for voltage at the Rear Window Defogger Relay Output circuit at the defogger grid. Did the test light illuminate? Yes → Repair the open in the Rear Window Defogger Grid or the Grid Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH AUTOMATIC TEMP CONTROL) — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, actuate the Rear Window Defogger Relay. Examine the Rear Window Defogger Relay. Does the Rear Window Defogger Relay click while actuating. Yes → Go To 5 No → Go To 8	All
5	Check the Power Distribution Center fuse 6. Is the fuse open. Yes → Check for a short to ground and replace the PDC fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Remove the Rear Window Defogger Relay from the Junction Block. Measure the voltage of the Fused B(+) circuit in the Rear Window Defogger Relay connector. Is the voltage above 10.0 volts? Yes → Go To 7 No → Repair the open Fused B(+) circuit from PDC fuse #6. Perform BODY VERIFICATION TEST - VER 1.	All
7	Remove the Rear Window Defogger Relay from the Junction Block. Install a known good relay in the Rear Window Defogger Relay connector. Turn the ignition on. Turn the Rear Window Defogger on. Using a 12 volt test light, check for voltage at the Rear Window Defogger Relay Output circuit at the defogger grid. Did the test light illuminate? Yes → Replace the original Rear Window Defogger Relay. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Rear Window Defogger Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	Check Junction Block fuse 15. Is the fuse open. Yes → Check for a short and replace the Junction Block fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Remove the Rear Window Defogger Relay from the Junction Block. Turn the ignition on. Measure the voltage of the Fused Ignition Switch circuit in the Rear Window Defogger Relay connector. Is the voltage above 10.0 volts? Yes → Go To 10 No → Repair the Fused Ignition Switch Output circuit from the ignition switch for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH AUTOMATIC TEMP CONTROL) — Continued

TEST	ACTION	APPLICABILITY
10	Remove the Rear Window Defogger Relay from the Junction Block. Install a known good relay in the Rear Window Defogger Relay connector. Turn the ignition on. With the DRBlll®, actuate the Rear Window Defogger Relay. Examine the Rear Window Defogger Relay. Does the Rear Window Defogger Relay click while actuating. Yes → Replace the original Rear Window Defogger Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Remove the BCM from the junction block. Reinstall the Rear Window Defogger Relay if removed. Turn the ignition on. Momentarily jumper the Rear Window Defogger Relay Control circuit (cavity 3) in the BCM internal connector to ground. Does the relay click? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH MANUAL TEMP CONTROL)**

POSSIBLE CAUSES
JUNCTION BLOCK FUSE 15
JUNCTION BLOCK FUSE 6
PDC FUSE 6
REAR WINDOW DEFOGGER RELAY OUTPUT CIRCUIT OPEN
RELATED HVAC DTC'S
REAR WINDOW DEFOGGER RELAY
REAR WINDOW DEFOGGER RELAY
REAR WINDOW DEFOGGER GRID OPEN
FUSED B(+) CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
FUSED REAR WINDOW DEFOGGER RELAY OUTPUT CIRCUIT OPEN
REAR WINDOW DEFOGGER RELAY CONTROL CIRCUIT OPEN
A/C HEATER CONTROL
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the Body Control Module DTC's. Are there any related HVAC DTC's present? Yes → Refer to the symptom list for related DTC's. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Toggle the Rear Defogger switch and observe the indicator. Does the indicator toggle on and off when the switch is pressed? Yes → Go To 3 No → Go To 4	All
3	Turn the ignition on. Turn the Rear Window Defogger on. Using a 12 volt test light, check for voltage at the Rear Window Defogger Relay Output circuit at the defogger grid. Did the test light illuminate? Yes → Repair the open in the Rear Window Defogger Grid or the Grid Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Rear Window Defogger Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH MANUAL TEMP CONTROL) — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, actuate the Rear Window Defogger Relay. Examine the Rear Window Defogger Relay. Does the Rear Window Defogger Relay click while actuating. Yes → Go To 5 No → Go To 10	All
5	Check the Power Distribution Center fuse 6. Is the fuse open. Yes → Check for a short to ground and replace the PDC fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Check Junction Block fuse 6. Is the fuse open. Yes → Check for a short to ground and replace the Junction Block fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Remove the Rear Window Defogger Relay from the Junction Block. Measure the voltage of the Fused B(+) circuit in the Rear Window Defogger Relay connector. Is the voltage above 10.0 volts? Yes → Go To 8 No → Repair the open Fused B(+) circuit from PDC fuse #6. Perform BODY VERIFICATION TEST - VER 1.	All
8	Remove the Rear Window Defogger Relay from the Junction Block. Install a known good relay in the Rear Window Defogger Relay connector. Turn the ignition on. Toggle the Rear Window Defogger switch and observe the indicator. Does the Rear Window Defogger indicator illuminate? Yes → Replace the original Rear Window Defogger Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Reinstall relay(s). Gain access to the A/C Heater Control C1 connector. Backprobe and measure the voltage of the Fused Rear Window Defogger Relay Output circuit in the C1 connector. With the DRBIII®, actuate the Rear Defogger Relay. Does the voltage toggle above 10.0 volts? Yes → Replace the A/C Heater Control. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Fused Rear Window Defogger Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*REAR WINDOW DEFOGGER INOPERATIVE (EQUIPPED WITH MANUAL TEMP CONTROL) — Continued

TEST	ACTION	APPLICABILITY
10	Check Junction Block fuse 15. Is the fuse open. Yes → Check for a short and replace the Junction Block fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Remove the Rear Window Defogger Relay from the Junction Block. Turn the ignition on. Measure the voltage of the Fused Ignition Switch circuit in the Rear Window Defogger Relay connector. Is the voltage above 10.0 volts? Yes → Go To 12 No → Repair the Fused Ignition Switch Output circuit from the ignition switch for an open. Perform BODY VERIFICATION TEST - VER 1.	All
12	Remove the Rear Window Defogger Relay from the Junction Block. Install a known good relay in the Rear Window Defogger Relay connector. Turn the ignition on. Toggle the Rear Window Defogger switch and observe the indicator. Does the Rear Window Defogger indicator illuminate? Yes → Replace the original Rear Window Defogger Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 13	All
13	Remove the BCM from the junction block. Reinstall the Rear Window Defogger Relay if removed. Turn the ignition on. Momentarily jumper the Rear Window Defogger Relay Control circuit (cavity 3) in the BCM internal connector to ground. Does the relay click? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*HEADLAMP DELAY RELAY INOPERATIVE

POSSIBLE CAUSES
FUSED B+ CIRCUIT OPEN
HEADLAMP DELAY RELAY
OPEN FUSE
INTERMITTENT CONDITION
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Check the PDC fuse 4. Is the fuse open? Yes → Replace the open Fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition on. Measure the voltage of the Fused B+ Circuit between the PDC and the Junction Block. Is the voltage above 10.0 volts? Yes → Go To 3 No → Repair the Fuse B+ Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Install a known good relay in place of the Headlamp Delay Relay. Actuate the Headlamp Delay system. Does the Headlamp Delay system operate normally? Yes → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition on. With the DRBIII®, read the Ignition Voltage. Does the DRBIII® display voltage above 10.0 volts? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*HI BEAM HEADLAMPS WILL NOT TURN OFF

POSSIBLE CAUSES
HEADLAMP DELAY RELAY OUTPUT CIRCUIT SHORT TO VOLTAGE
HEADLAMP DELAY RELAY
HEADLAMP DELAY RELAY CONTROL CIRCUIT SHORT TO VOLTAGE
MULTIFUNCTION SWITCH

TEST	ACTION	APPLICABILITY
1	Remove the Headlamp Delay Relay from the junction block. Did the High Beam Headlamps turn off? Yes → Go To 2 No → Repair the Headlamp Delay Relay Output Circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1.	All
2	Remove the Headlamp Delay Relay. Measure the voltage of the Headlamp Delay Relay Control circuit in the relay connector. Is the voltage above 1.0 volts? Yes → Go To 3 No → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1.	All
3	Remove the Headlamp Delay Relay from the junction block. Disconnect the Multifunction Switch connector. Measure the voltage of the Switched Headlamp Delay Relay Control circuit to ground. Is the voltage above 1.0 volts? Yes → Repair the Headlamp Delay Relay Control Circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Multifunction Switch. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***HIGH BEAM HEADLAMPS WILL NOT TURN ON**

POSSIBLE CAUSES
OPEN FUSED B+
FUSED LOW BEAM OUTPUT CIRCUIT SHORT TO GROUND
FUSED HIGH BEAM OUTPUT CIRCUIT SHORT TO GROUND
HEADLAMP DELAY RELAY
FUSED LOW BEAM OUTPUT CIRCUIT OPEN
HEADLAMP DELAY RELAY CONTROL CIRCUIT OPEN
MULTIFUNCTION SWITCH

TEST	ACTION	APPLICABILITY
1	Turn the Headlamps on. Gain access to the High Beam Headlamp Relay in the junction block. Cycle the high beam switch on the multifunction switch and listen to or feel the High Beam Relay for a click. Does the relay click? Yes → Go To 2 No → Go To 3	All
2	Remove the Headlamp Delay Relay. Measure the voltage of the Fused B+ circuit at the Headlamp Delay Relay connector. Is the voltage above 10.0 volts? Yes → Go To 3 No → Repair the open fused B+ circuit from PDC fuse 4. Perform BODY VERIFICATION TEST - VER 1.	All
3	Remove fuse 4 from the PDC. Disconnect the Multifunction Switch connector. Measure the resistance of the Fused Low Beam Output Circuit to ground. Is the resistance below 5.0 ohms? Yes → Repair the Fused Low Beam output circuit for a short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Remove the Headlamp Delay Relay from the junction block. Disconnect the Multifunction Switch connector. Measure the resistance of the Headlamp Delay Relay Control circuit to ground. Is the resistance below 5.0 ohms? Yes → Repair the Fused High Beam Output Circuit for a short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All

*HIGH BEAM HEADLAMPS WILL NOT TURN ON — Continued

TEST	ACTION	APPLICABILITY
5	Disconnect the Multifunction Switch connector. Turn the headlamps on. Measure the voltage of the Fused Low Beam Relay Output circuit in the multifunction switch connector. Is the voltage below 10.0 volts? Yes → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Disconnect the Multifunction Switch connector. Turn the headlamps on. Measure the voltage of the Fused Low Beam Relay Output circuit in the multifunction switch connector. Is the voltage above 5.0 volts? Yes → Go To 7 No → Repair the open Fused Low Beam Output circuit. Perform BODY VERIFICATION TEST - VER 1.	All
7	Disconnect the Multifunction Switch connector. Turn the headlamps on. Ensure the Headlamp Delay Relay is installed. Connect a jumper wire between the Fused Low Beam Relay Output and the Switched High Beam Relay Control circuits in the multifunction switch connector. Did the High Beam Headlamps come on? Yes → Repair the Headlamp Delay Relay Control Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Multifunction Switch. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***LOW BEAM HEADLAMPS WILL NO TURN OFF**

POSSIBLE CAUSES
MULTIFUNCTION SWITCH
HEADLAMP DELAY RELAY OUTPUT CIRCUIT SHORT TO VOLTAGE
HEADLAMP DELAY RELAY
JUNCTION BLOCK
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the headlamp switch to the off position. With the DRBIII®, read the Headlamp Switch Voltage. Does the DRBIII® display Headlamp Switch Voltage between 4.3 and 4.8 Volts? Yes → Go To 2 No → Replace the Multifunction Switch. Perform BODY VERIFICATION TEST - VER 1.	All
2	Remove the Headlamp Delay Relay from the junction block. Did the Low Beams turn off? Yes → Go To 3 No → Repair the Headlamp Delay Relay Output Circuit for a short to voltage condition. Perform BODY VERIFICATION TEST - VER 1.	All
3	Substitute a known good relay in place of the Headlamp Delay Relay. Does the system operate normally? Yes → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Remove the Headlamp Delay Relay. Remove the Body Control Module from the junction block. Measure the resistance of the Headlamp Delay Relay Control Circuit and ground. Is the resistance below 100.0 ohms? Yes → Replace the Junction Block Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***LOW BEAM HEADLAMPS WILL NOT TURN ON**

POSSIBLE CAUSES
MULTIFUNCTION SWITCH
JUNCTION BLOCK
FUSED LOW BEAM OUTPUT CIRCUIT OPEN
HEADLAMP DELAY RELAY
HEADLAMP DELAY RELAY
JUNCTION BLOCK
BODY CONTROL MODULE
OPEN FUSED B+ TO JUNCTION BLOCK
B+ CIRCUIT FUSE
FUSED B+ CIRCUIT SHORT TO GROUND

TEST	ACTION	APPLICABILITY
1	Turn the Headlamps on. With the DRBIII® read the Multifunction Switch voltage. Does the DRBIII® display Multifunction Switch voltage between 1.4 and 1.8 volts? Yes → Go To 2 No → Replace the Multifunction Switch. Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRBIII® actuate the Headlamp Delay Relay. Listen to or touch the Headlamp Delay Relay. Does the relay click during actuation? Yes → Go To 3 No → Go To 5	All
3	Remove the Headlamp Delay Relay. Measure the voltage of the Fused B+ circuit in the Headlamp Delay Relay. Is the voltage above 10.0 volts? Yes → Go To 4 No → Replace the Junction Block Perform BODY VERIFICATION TEST - VER 1.	All
4	Remove the Headlamp Delay Relay from the junction block. Ensure fuses 13 and 12 are OK and are installed in the junction block. Connect a jumper wire between the Fused B+ Circuit and the Headlamp Delay Relay Output Circuit in the relay connector. Did the low beam headlamps come on? Yes → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Fused Low Beam Output Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1.	All

*LOW BEAM HEADLAMPS WILL NOT TURN ON — Continued

TEST	ACTION	APPLICABILITY
5	Remove the Headlamp Delay Relay. Measure the voltage of the Fused B+ circuit in the Headlamp Delay Relay. Is the voltage above 10.0 volts? Yes → Go To 6 No → Go To 8	All
6	Remove the Headlamp Delay Relay from the junction block. Connect a 12 volt test light between the Headlamp Delay Relay Control circuit, and the Fused B+ circuit in the Relay connector. With the DRBIII® actuate the Headlamp Relay. Did the test light flash during actuation? Yes → Replace the Headlamp Delay Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Remove the Headlamp Delay Relay from the junction block. Remove the Body Control Module from the junction block. Measure resistance of the Headlamp Delay Relay control circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All
8	Remove and test the PDC Fuse 4. Is the Fuse open? Yes → Go To 9 No → Repair the open Fused B+ circuit between the Headlamp Delay Relay connector in the junction block and the PDC Fuse 4 connector. Perform BODY VERIFICATION TEST - VER 1.	All
9	Remove Fuse 4 from the PDC Measure the resistance of the Fused B+ circuit in the fuse connector to ground. Is the resistance below 5.0 ohms? Yes → Repair the Fused B+ circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the fuse and retest the system. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
A/C BLEND DOOR INPUT SHORTED TO BATTERY - MTC

When Monitored and Set Condition:

A/C BLEND DOOR INPUT SHORTED TO BATTERY - MTC

When Monitored: With the engine running.

Set Condition: The BCM reads the signal from the A/C - Heater Control blend request and positions the blend door accordingly. If the voltage on this pin exceeds 90% of ignition voltage, the DTC will set, and the BCM will place the blend door in a default position.

POSSIBLE CAUSES
CONTROL HEAD - TEMPERATURE SELECT SIGNAL SHORTED TO VOLTAGE
TEMPERATURE SELECT SIGNAL CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE - TEMPERATURE SELECT SIGNAL SHORTED TO VOLTAGE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, record and erase Body Computer DTC's. Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. Measure the voltage of the Temperature Select Signal circuit. Is the voltage above 0.3 volts? Yes → Go To 2 No → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the Temperature Select Signal circuit. Is there any voltage present? Yes → Repair the Temperature Select Signal circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

A/C BLEND DR INPUT OPEN/SHORT TO GROUND - MTC

When Monitored and Set Condition:

A/C BLEND DR INPUT OPEN/SHORT TO GROUND - MTC

When Monitored: With the engine running.

Set Condition: The BCM reads the signal from the A/C - Heater Control blend request and positions the blend door accordingly. If the voltage on this pin is below 0.1 volts, the DTC will set, and the BCM will place the blend door in a default position.

POSSIBLE CAUSES
ADDITIONAL CODE(S) PRESENT
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
TEMPERATURE SELECT SIGNAL CIRCUIT SHORTED TO GROUND
TEMPERATURE SELECT SIGNAL CIRCUIT SHORTED TO SENSOR GROUND
TEMPERATURE SELECT SIGNAL CIRCUIT OPEN
CONTROL HEAD - TEMPERATURE SELECT SIGNAL OPEN/SHORTED TO GROUND
BODY CONTROL MODULE - TEMPERATURE SELECT SIGNAL OPEN/SHORTED TO GROUND

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII® read the Body Computer DTCs. Are Mode Door Input Open/STG and Blend Door Input Open/STG DTCs present? (May set TCM Msg Not Recd). Yes → If JB Fuse 11 is open, check for short to ground in Junction Block, BCM, and Fused Ign Sw Output Ckt. If JB Fuse 11 is not open, check for an open between JB Fuse 11 Pin 19, and JB C7-10 harness connector, and splice 210 in Fused Ign Sw Output Ckt. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C BLEND DR INPUT OPEN/SHORT TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the Temperature Select Signal circuit. Is the resistance below 10K ohms? Yes → Repair the Temperature Select Signal circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Sensor Ground circuit and the Temperature Select Signal circuit at the A/C - Heater Control C1 harness connector. Is the resistance below 10K ohms? Yes → Repair the Temperature Select Signal circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Temperature Select Signal circuit between the A/C - Heater Control C1 harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the Temperature Select Signal circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C BLEND DR INPUT OPEN/SHORT TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
6	Turn the ignition off. Reconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Put the Blend Control switch in the full cold position. Turn the ignition on. Measure the voltage of the Temperature Select Signal circuit. Move the Blend Control switch from full cold to full hot while observing the voltmeter. Does the voltage change fluidly from approximately 9.0 volts (full cold) to 11.89 volts (full hot)? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

A/C HEAD, A/C SWITCH FAILURE - MTC

When Monitored and Set Condition:

A/C HEAD, A/C SWITCH FAILURE - MTC

When Monitored: With the engine running and the Blower Control switch on.

Set Condition: This DTC will set if the BCM sees a request for A/C from the A/C - Heater Control with the Mode Control switch in the Panel-Heater position, Mix-Heater position, or Floor-Heater mode position.

POSSIBLE CAUSES
CONTROL HEAD - A/C SWITCH SENSE INCORRECT
BODY CONTROL MODULE - A/C SWITCH SENSE INCORRECT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTCs. Ensure that the Rear Window Defogger is off. Put the Mode Control switch in the Recirc/Bi-Level (full left) position. Start the engine. With the DRBIII® in Sensor Display, read the A/C EBL Switch voltage and the Mode Switch voltage in each door position. Look for the following approximate voltage readings: Recirc-A/C position: A/C EBL Switch, 4.42 volts, Mode Switch, 1.32 volts. Panel-A/C position: A/C EBL Switch, 4.42 volts, Mode Switch, 3.20 volts. Mix-A/C position: A/C EBL Switch 4.42 volts, Mode Switch 5.07 volts. Panel-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 3.20 volts. Mix-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 5.07 volts. Floor-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 7.16 volts. Does DRBIII® display the approximate voltages for each Mode Control switch position? Yes → Go To 2 No → Replace the A/C - Heater Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition on. With the DRBIII®, erase Body Computer DTCs. Start the engine. Turn the Blower Control switch on. With the DRBIII®, read DTCs while slowly turning the Mode Control switch to each of the door positions several times. Does the DRBIII® display: A/C Head, A/C Switch Failure? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

A/C HEAD, EBL INPUT SHORTED TO BATTERY - MTC

When Monitored and Set Condition:

A/C HEAD, EBL INPUT SHORTED TO BATTERY - MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if voltage on the A/C Switch Sense pin exceeds 90% of ignition voltage for 10 seconds.

POSSIBLE CAUSES
A/C SWITCH SENSE CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE - A/C SWITCH SENSE SHORTED TO VOLTAGE
A/C HEATER CONTROL
INTERMITTENT WIRING PROBLEM

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, record and erase Body Computer DTC's. Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. Measure the voltage of the A/C Switch Sense circuit. Is the voltage above 10.0 volts? Yes → Go To 2 No → Go To 3	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the A/C Switch Sense circuit. Is there any voltage present? Yes → Repair the A/C Switch Sense circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C HEAD, EBL INPUT SHORTED TO BATTERY - MTC — Continued

TEST	ACTION	APPLICABILITY
3	**NOTE: Make sure that the A/C - Heater Control C1 harness connector is connected to the A/C - Heater Control.** Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. With the DRBIII®, read Body Computer DTCs. Does the DRBIII® display: A/C Head, EBL Input Shorted To Batt? Yes → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for conditions causing an intermittent short. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

A/C HEAD, EBL INPUT SHORTED TO GROUND - MTC

When Monitored and Set Condition:

A/C HEAD, EBL INPUT SHORTED TO GROUND - MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the BCM detects voltage below 0.1 volts on its A/C Switch Sense circuit.

POSSIBLE CAUSES
CONTROL HEAD - SHORT TO GROUND
A/C SWITCH SENSE CIRCUIT SHORT TO GROUND
A/C SW SENSE CIRCUIT SHORT TO SENSOR GROUND
BODY CONTROL MODULE - A/C SWITCH SENSE SHORT TO GROUND
CONTROL HEAD - A/C SWITCH SENSE INCORRECT
BODY CONTROL MODULE - A/C SWITCH SENSE INCORRECT
INTERMITTENT WIRING PROBLEM

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Put the Mode Control switch in the Recirc/Bi-Level (full left) position. With the DRBIII®, record and erase Body Computer DTC's. With the DRBIII® in Sensor Display, read the A/C EBL voltage. Is the voltage below 0.5 volts? Yes → Go To 2 No → Go To 6	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. With the DRBIII® in Sensor Display, read the A/C EBL voltage. Is the voltage above 3.0 volts? Yes → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All

A/C HEAD, EBL INPUT SHORTED TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the A/C Switch Sense circuit. Is the resistance below 10K ohms? Yes → Repair the A/C Switch Sense circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Sensor Ground circuit and the A/C Switch Sense circuit at the A/C - Heater Control C1 harness connector. Is the resistance below 10K ohms? Yes → Repair the A/C Switch Sense circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition on. With the DRBIII®, record and erase DTCs. Ensure that the Rear Window Defogger is off. Put the Mode Control switch in the Recirc/Bi-Level (full left) position. Start the engine. With the DRBIII® in Sensor Display, read the A/C ABLE Switch voltage and the Mode Switch voltage in each door position. Look for the following approximate voltage readings: Recirc-A/C position: A/C EBL Switch, 4.42 volts, Mode Switch, 1.32 volts. Panel-A/C position: A/C EBL Switch, 4.42 volts, Mode Switch, 3.20 volts. Mix-A/C position: A/C EBL Switch 4.42 volts, Mode Switch 5.07 volts. Panel-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 3.20 volts. Mix-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 5.07 volts. Floor-Heater position: A/C EBL Switch 10.79 volts, Mode Switch 7.16 volts. Does DRBIII® display the approximate voltages for each Mode Control switch position? Yes → Go To 7 No → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C HEAD, EBL INPUT SHORTED TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
7	Turn the ignition on. With the DRBIII®, erase DTCs. Start the engine. Turn the Blower Control switch on. With the DRBIII®, read DTCs while slowly turning the Mode Control switch to each of the door positions several times. Does the DRBIII® display: A/C Head, EBL Input Shorted to Ground? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for conditions causing an intermittent short. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
A/C HEAD, EBL SWITCH STUCK - MTC

When Monitored and Set Condition:

A/C HEAD, EBL SWITCH STUCK - MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the BCM detects the EBL switch stuck in the depressed position for at least 30 seconds.

POSSIBLE CAUSES
ADDITIONAL CODE(S) PRESENT
REAR DEFOGGER SWITCH STUCK
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display any additional code(s)? Yes → Return to the Symptom List and choose the code(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition on. With the DRBIII® in Sensor Display, read the A/C EBL voltage while pressing and releasing the Rear Defogger switch several times. Does the voltage decrease when pressing the switch and increase when the switch is released? Yes → Go To 3 No → Replace the A/C - Heater Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition on. With the DRBIII®, erase Body Computer DTCs. With the DRBIII®, read Body Computer DTCs. Does the DRBIII® display A/C Head, EBL Switch Stuck? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
A/C MODE DOOR INPUT OPEN/SHORT TO GROUND - MTC

When Monitored and Set Condition:

A/C MODE DOOR INPUT OPEN/SHORT TO GROUND - MTC

When Monitored: With the ignition on.

Set Condition: The A/C - Heater Control provides a 5 volt pull-up to the mode request selector. The BCM reads the signal from the A/C - Heater Control mode request and positions the mode door accordingly. If the voltage on this pin is below 0.1 volts, the DTC will set, and the BCM will place the mode door in a default position.

POSSIBLE CAUSES
ADDITIONAL CODE(S) PRESENT
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
A/C MODE SWITCH MUX CIRCUIT SHORT GROUND
A/C MODE SWITCH MUX CIRCUIT SHORT SENSOR GROUND
A/C MODE SWITCH MUX CIRCUIT OPEN
CONTROL HEAD - MODE SWITCH MUX OPEN/SHORTED TO GROUND
BODY CONTROL MODULE - MODE SWITCH MUX OPEN/SHORTED TO GROUND

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII® read the Body Computer DTCs. Are Mode Door Input Open/STG and Blend Door Input Open/STG DTCs present? (May set TCM Msg Not Recd). Yes → If JB Fuse 11 is open, check for short to ground in Junction Block, BCM, and Fused Ign Sw Output Ckt. If JB Fuse 11 is not open, check for an open between JB Fuse 11 Pin 19, and JB C7-10 harness connector, and splice 210 in Fused Ign Sw Output Ckt. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, probe the Fused Ignition Switch Output circuit. Is the test light illuminated? Yes → Go To 3 No → Repair the Fused Ignition Switch Output circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C MODE DOOR INPUT OPEN/SHORT TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the A/C Mode Switch Mux circuit. Is the resistance below 10K ohms? Yes → Repair the A/C Mode Switch MUX circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Sensor Ground circuit and the A/C Mode Switch MUX circuit at the A/C - Heater Control C! harness connector. Is the resistance below 10K ohms? Yes → Repair the A/C Mode Switch MUX circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Reconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the A/C Mode Switch MUX circuit between the A/C Heater Control C1 harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the A/C Mode Switch MUX circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

A/C MODE DOOR INPUT OPEN/SHORT TO GROUND - MTC — Continued

TEST	ACTION	APPLICABILITY
6	Turn the ignition off. Reconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Put the Mode Control switch in the Recirc/Bi-Level (full left) position. Turn the ignition on. Measure the voltage of the A/C Mode Switch MUX circuit. Move the Mode Control switch from Recirc to Defrost while observing the voltmeter. Does the voltage change fluidly from approximately 8.8 volts (Recirc) to 11.7 volts (Defrost)? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
A/C MODE DOOR INPUT SHORTED TO BATTERY - MTC

When Monitored and Set Condition:

A/C MODE DOOR INPUT SHORTED TO BATTERY - MTC

When Monitored: With the engine running.

Set Condition: The BCM reads the signal from the A/C - Heater Control mode request and positions the mode door accordingly. If the voltage on this pin exceeds 90% of ignition voltage, the DTC will set, and the BCM will place the mode door in a default position.

POSSIBLE CAUSES
CONTROL HEAD - A/C MODE SWITCH MUX SHORTED TO VOLTAGE
A/C MODE SWITCH MUX CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE - A/C MODE SWITCH MUX SHORTED TO VOLTAGE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, record and erase Body Computer DTC's. Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Turn the ignition on. Measure the voltage of the A/C Mode Switch MUX circuit. Is the voltage above 0.3 volts? Yes → Go To 2 No → Replace the A/C - Heater Control in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C1 harness connector. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the A/C Mode Switch MUX circuit. Is there any voltage present? Yes → Repair the A/C Mode Switch MUX circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

A/C SWITCH FAILURE - ATC
AUTO SWITCH FAILURE - ATC
BILEVEL SWITCH FAILURE - ATC
DEFROST SWITCH FAILURE - ATC
EBL SWITCH FAILURE - ATC
FLOOR SWITCH FAILURE - ATC
MIX SWITCH FAILURE - ATC
OFF SWITCH FAILURE - ATC
PANEL SWITCH FAILURE - ATC
RECIRC SWITCH FAILURE - ATC
TEMP DOWN FAILURE - ATC
TEMP UP FAILURE - ATC

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be A/C SWITCH FAILURE - ATC.

When Monitored and Set Condition:

A/C SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the A/C switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

AUTO SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Auto switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

BILEVEL SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Bilevel switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

DEFROST SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Defrost switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

A/C SWITCH FAILURE - ATC — Continued

EBL SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the EBL switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

FLOOR SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Floor switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

MIX SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Mix switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

OFF SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Off switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

PANEL SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Panel switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

RECIRC SWITCH FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Recirculation switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

TEMP DOWN FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Temperature Down switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

A/C SWITCH FAILURE - ATC — Continued

TEMP UP FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Temperature Up switch is held in the closed position for 10 minutes. The BCM will store this DTC. The DRBIII® will display this DTC in either BCM or Automatic Temperature Control.

POSSIBLE CAUSES
AUTOMATIC TEMPERATURE CONTROL
AUTOMATIC TEMPERATURE CONTROL
AUTOMATIC TEMPERATURE CONTROL
AUTOMATIC TEMPERATURE CONTROL
INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Which switch failure code is present? Other than Temp Up/Temp Down Failure Go To 2 Temp Up/Temp Down Failure Go To 4	All
2	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Inputs/Outputs, read the switch states. Do any of the switch states read Closed? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Inputs/Outputs, read the switch states while pressing and then releasing the Auto; Off; A/C; Recirc; Panel; Floor; Mix; Bilevel; EBL; and Defrost buttons on the ATC. Do any of the switch states remain Closed? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All

A/C SWITCH FAILURE - ATC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition on. While observing the ATC temperature display, press and hold the Temp Up button for several seconds. While observing the ATC temperature display, press and hold the Temp Down button for several seconds. Does the temperature display change accordingly? Yes → Go To 5 No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. With the DRBIII®, read the Body Computer DTCs. Did the DTC reset? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Symptom not present at this time. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
ATC BLOWER STALL FAULT

When Monitored and Set Condition:

ATC BLOWER STALL FAULT

When Monitored: With the ignition on and blower motor operation requested.

Set Condition: This DTC will set if the blower motor is stalled.

POSSIBLE CAUSES
BLOCKAGE STALLING BLOWER MOTOR
BLOWER MOTOR

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Remove the blower motor from the HVAC housing assembly. Look for anything on the blower motor and in the HVAC housing that is physically preventing blower motor operation. Is anything physically preventing blower operation? Yes → Repair as necessary. Also, check blower motor for proper operation. Reinstall or replace the blower motor as necessary in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the blower motor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

BLEND DOOR FEEDBACK FAILURE - ATC & MTC
BLEND DOOR STALL TEST FAILURE - ATC & MTC

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be BLEND DOOR FEEDBACK FAILURE - ATC & MTC.

When Monitored and Set Condition:

BLEND DOOR FEEDBACK FAILURE - ATC & MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the BCM detects voltage below 0.06 volts or above 4.8 volts on the Blend Door Feedback Signal input/Mode Door Feedback Signal input.

BLEND DOOR STALL TEST FAILURE - ATC & MTC

When Monitored: During HVAC motor calibration.

Set Condition: This DTC will set if the BCM is unable to detect the end of travel for the blend door.

POSSIBLE CAUSES
CHECK CODE(S) PRESENT
MODE DOOR FEEDBACK/STALLTEST FAILURE DTC PRESENT
ADDITIONAL FEEDBACK/STALL TEST FAILURE DTCS PRESENT
BLEND DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO THE DOOR DRIVER CIRCUIT(S)
BLEND DOOR, LINKAGE, ACTUATOR
BLEND DOOR DRIVER CIRCUIT OPEN
COMMON DOOR DRIVER CIRCUIT OPEN
BODY CONTROL MODULE
SENSOR GROUND CIRCUIT OPEN
BODY CONTROL MODULE
5 VOLT SUPPLY CIRCUIT SHORTED TO GROUND
5 VOLT SUPPLY CIRCUIT OPEN
5 VOLT SUPPLY CIRCUIT SHORTED TO SENSOR GROUND CIRCUIT
BODY CONTROL MODULE
BLEND DOOR, LINKAGE, ACTUATOR
BLEND DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO GROUND
BLEND DOOR FEEDBACK SIGNAL CIRCUIT OPEN
BLEND DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO SENSOR GROUND CIRCUIT

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

POSSIBLE CAUSES
BODY CONTROL MODULE
5 VOLT SUPPLY CIRCUIT SHORTED TO VOLTAGE
BLEND DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. What code(s) does the DRBIII® display? Other than Feedback or Stall Test Fail Refer to the appropriate category for the related symptom(s). Diagnose all other DTCs before diagnosing Stall Test or Feedback Failures. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. Mode Door Feedback/Stall Test only Return to the Symptom List and choose the symptom(s). Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. More than one Feedback/Stall Test Fail Go To Test #2 and follow the directions. However, before making any repairs, perform the diagnostic procedures for each door that set a Feedback/Stall Test Failure DTC. Doing so will identify all possible conditions causing the individual DTCs to set. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. Blend Door Feedback/Stall Test only Go To 2 No DTC(s) reset Go To 19	All
2	Turn the ignition on. With the DRBIII® in Sensor Display, read the Blend Door voltage. What voltage is present? Btwn 0.07 to 4.7 volts Go To 3 Less than 0.07 volts Go To 9 Above 4.7 volts Go To 17	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Turn the ignition on. Measure the voltage of the 5 Volt Supply circuit between the Sensor Ground circuit and the 5 Volt Supply circuit. Is the voltage above 4.5 volts? Yes → Go To 4 No → Go To 8	All
4	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Blend Door Feedback Signal circuit and each of the Door Driver circuits (Blend, Mode, Recirc, & Common). Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for a short to the Blend Door Feedback Signal circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Reconnect the BCM C2 harness connector. Disconnect the Blend Door Actuator harness connector. While back probing, connect a test light between the Blend Door Driver circuit and the Common Door Driver circuit in the Blend Door Actuator harness connector. Start the engine. With the DRBIII®, select Body, Body Computer, System Tests, Actuate Mode Doors. Select Blend Door. While observing the test light, press and hold the DRB right arrow key for several seconds. While observing the test light, press and hold the DRB left arrow key for several seconds. Is the test light on while the right and left arrow keys are pressed? Yes → Inspect for missing & broken actuator linkage. Check door for binding & loss of full range. Inspect housing for missing or broken stops. Repair as necessary. If linkage and door are okay, replace Blend Door Actuator in accordance with Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
6	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Blend Door Driver circuit between the Blend Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 7 No → Repair the Blend Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Common Door Driver circuit between the Blend Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Common Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Sensor Ground circuit between the Blend Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Sensor Ground circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Turn the ignition on. Measure the voltage of the 5 Volt Supply circuit. What voltage is present? Less than 4.5 volts. Go To 10 4.5 to 5.5 volts Go To 13	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
10	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the 5 Volt Supply circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the 5 Volt Supply circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the 5 Volt Supply circuit between the Blend Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 12 No → Repair the 5 Volt Supply circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
12	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the 5 Volt Supply circuit and the Sensor Ground circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the 5 Volt Supply circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
13	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Connect a jumper wire between the Blend Door Feedback Signal circuit and the 5 Volt Supply circuit. Turn the ignition on. With the DRBIII® in Sensor Display, read the Blend Door voltage. Is the voltage between 4.5 & 5.5 volts? Yes → Inspect for missing & broken actuator linkage. Check door for binding & loss of full range. Inspect housing for missing or broken stops. Repair as necessary. If linkage and door are okay, replace Blend Door Actuator in accordance with Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 14	All
14	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the Blend Door Feedback Signal circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the Blend Door Feedback Signal circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 15	All
15	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Blend Door Feedback Signal circuit between the BCM C2 harness connector and the Blend Door Actuator harness connector. Is the resistance below 5.0 ohms? Yes → Go To 16 No → Repair the Blend Door Feedback Signal circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
16	Turn the ignition off. Disconnect the Blend Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Blend Door Feedback Signal circuit and the Sensor Ground circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the Blend Door Feedback Signal circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
17	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the 5 volt supply circuit. Is the voltage above 0.2 volts? Yes → Repair the 5 Volt Supply circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 18	All
18	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the Blend Door Feedback Signal circuit. Is the voltage above 0.2 volts? Yes → Repair the Blend Door Feedback Signal circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

BLEND DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
19	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom List:

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC
COMMON OUTPUT SHORT TO BATTERY - ATC & MTC
MODE DOOR OUTPUT SHORT TO BATTERY - ATC & MTC
RECIRC DOOR OUTPUT SHORT TO BATTERY - ATC & MTC

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC.

When Monitored and Set Condition:

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC

When Monitored: Whenever the BCM attempts to drive the Blend Door Actuator.

Set Condition: This DTC will set if the BCM detects a short to voltage on the Blend Door Driver circuit. All Door Output Shorted To Batt DTCs may set if at least one door output is shorted.

COMMON OUTPUT SHORT TO BATTERY - ATC & MTC

When Monitored: Whenever the BCM attempts to drive one of the HVAC actuators.

Set Condition: This DTC will set if the BCM detects a short to voltage on the Common Door Driver circuit. All Door Output Shorted To Batt DTCs may set if at least one door output is shorted.

MODE DOOR OUTPUT SHORT TO BATTERY - ATC & MTC

When Monitored: Whenever the BCM attempts to drive the Mode Door Actuator.

Set Condition: This DTC will set if the BCM detects a short to voltage on the Mode Door Driver circuit. All Door Output Shorted To Batt DTCs may set if at least one door output is shorted.

RECIRC DOOR OUTPUT SHORT TO BATTERY - ATC & MTC

When Monitored: Whenever the BCM attempts to drive the Recirculation Door Actuator.

Set Condition: This DTC will set if the BCM detects a short to voltage on the Recirculation Door Driver circuit. All Door Output Shorted To Batt DTCs may set if at least one door output is shorted.

POSSIBLE CAUSES
DOOR DRIVER CIRCUIT(S) SHORTED TO BATTERY
DOOR DRIVER CIRCUIT SHORTED TO OTHER DOOR DRIVER CIRCUIT(S)
COMMON DOOR DRIVER CKT SHORTED TO OTHER DOOR DRIVER CKT(S) - IP HARNESS SIDE
BODY CONTROL MODULE

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC — Continued

POSSIBLE CAUSES
MODE DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
MODE DOOR ACTUATOR
BLEND DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
BLEND DOOR ACTUATOR
RECIRCULATION DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
RECIRCULATION DOOR ACTUATOR
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Batt? Yes → Go To 2 No → Go To 11	All
2	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage between ground and each of the Door Driver circuits (Blend, Mode, Recirc, & Common). Is the voltage above 0.2 volts? Yes → Repair all Door Driver circuits with voltage above 0.2 volts for a short to battery. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Blend Door Driver circuit and the Mode Door Driver circuit, and the Recirc Door Driver circuit in the BCM C2 harness connector. Measure the resistance between the Mode Door Driver circuit and the Recirc Door Driver circuit in the BCM C2 harness connector. Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for short together. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Reconnect the Body Control Module C2 harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Batt? Yes → Go To 5 No → Go To 6	All
5	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Common Door Driver circuit and the Blend Door Driver circuit, the Mode Door Driver circuit, and the Recirc Door Driver circuit in the BCM C2 harness connector. Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Mode Door Actuator harness connector. Measure the resistance between the Common Door Driver circuit and the Mode Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Mode Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
7	Turn the ignition off Ensure the Body Control Module C2 harness connector is connected. Reconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Mode Door Actuator harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Batt? Yes → Go To 8 No → Replace the Mode Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Blend Door Actuator harness connector. Measure the resistance between the Common Door Driver circuit and the Blend Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Blend Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Turn the ignition off Ensure the Body Control Module C2 harness connector is connected. Reconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Blend Door Actuator harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Batt? Yes → Go To 10 No → Replace the Blend Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

BLEND DOOR OUTPUT SHORT TO BATTERY - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
10	Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Recirculation Door Actuator harness connector. Measure the resistance between the Recirculation Door Driver circuit and the Common Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Recirculation Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Recirculation Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
11	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom List:

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC
COMMON OUTPUT SHORT TO GROUND - ATC & MTC
MODE DOOR OUTPUT SHORT TO GROUND - ATC & MTC
RECIRC DOOR OUTPUT SHORT TO GROUND - ATC & MTC

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC.

When Monitored and Set Condition:

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC

When Monitored: Whenever the BCM attempts to drive one of the HVAC actuators.

Set Condition: This DTC will set if the BCM detects one or more of the following outputs shorted to ground: mode door driver, blend door driver, recirculation door driver or the common door driver.

COMMON OUTPUT SHORT TO GROUND - ATC & MTC

When Monitored: Whenever the BCM attempts to drive one of the HVAC actuators.

Set Condition: This DTC will set if the BCM detects one or more of the following outputs shorted to ground: mode door driver, blend door driver, recirculation door driver or the common door driver.

MODE DOOR OUTPUT SHORT TO GROUND - ATC & MTC

When Monitored: Whenever the BCM attempts to drive one of the HVAC actuators.

Set Condition: This DTC will set if the BCM detects one or more of the following outputs shorted to ground: mode door driver, blend door driver, recirculation door driver or the common door driver.

RECIRC DOOR OUTPUT SHORT TO GROUND - ATC & MTC

When Monitored: Whenever the BCM attempts to drive one of the HVAC actuators.

Set Condition: This DTC will set if the BCM detects one or more of the following outputs shorted to ground: mode door driver, blend door driver, recirculation door driver or the common door driver.

POSSIBLE CAUSES
DOOR DRIVER CIRCUIT(S) SHORTED TO GROUND
DOOR DRIVER CIRCUIT(S) SHORTED TO SENSOR GROUND
DOOR DRIVER CIRCUIT SHORTED TO OTHER DOOR DRIVER CIRCUIT(S)
COMMON DOOR DRIVER CKT SHORTED TO OTHER DOOR DRIVER CKT(S) - IP HARNESS SIDE

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC — Continued

POSSIBLE CAUSES
BODY CONTROL MODULE
MODE DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
MODE DOOR ACTUATOR
BLEND DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
BLEND DOOR ACTUATOR
RECIRCULATION DOOR DRIVER CIRCUIT SHORTED TO COMMON DOOR DRIVER CIRCUIT
RECIRCULATION DOOR ACTUATOR
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Ground? Yes → Go To 2 No → Go To 12	All
2	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and each of the Door Driver circuits (Blend, Mode, Recirc, & Common). Is the resistance below 10K ohms on any of the circuits? Yes → Repair all Door Driver circuits with a resistance below 10K ohms for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between Sensor Ground and each of the Door Driver circuits (Blend, Mode, Recirc, & Common). Is the resistance below 10K ohms on any of the circuits? Yes → Repair all Door Driver circuits with a resistance below 10K ohms for a short to Sensor Ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Blend Door Driver circuit and the Mode Door Driver circuit, and the Recirc Door Driver circuit in the BCM C2 harness connector. Measure the resistance between the Mode Door Driver circuit and the Recirc Door Driver circuit in the BCM C2 harness connector. Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for short together. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Reconnect the Body Control Module C2 harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Ground? Yes → Go To 6 No → Go To 7	All
6	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Common Door Driver circuit and the Blend Door Driver circuit, the Mode Door Driver circuit, and the Recirc Door Driver circuit in the BCM C2 harness connector. Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
7	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Mode Door Actuator harness connector. Measure the resistance between the Common Door Driver circuit and the Mode Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Mode Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 8	All
8	Turn the ignition off Ensure the Body Control Module C2 harness connector is connected. Reconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Mode Door Actuator harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Ground? Yes → Go To 9 No → Replace the Mode Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Blend Door Actuator harness connector. Measure the resistance between the Common Door Driver circuit and the Blend Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Blend Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 10	All

BLEND DOOR OUTPUT SHORT TO GROUND - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
10	Turn the ignition off Ensure the Body Control Module C2 harness connector is connected. Reconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Blend Door Actuator harness connector. Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: XXXX Door Output Short To Ground? Yes → Go To 11 No → Replace the Blend Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
11	Disconnect the C200 in-line connector (HVAC) located in the center of the instrument panel above the accelerator pedal. Disconnect the Recirculation Door Actuator harness connector. Measure the resistance between the Recirculation Door Driver circuit and the Common Door Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Recirculation Door Driver circuit for a short to the Common Door Driver circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Recirculation Door Actuator in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
12	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
DIMMING CODE RX FAILURE - ATC

When Monitored and Set Condition:

DIMMING CODE RX FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: If the Automatic Temperature Control does not receive the VF Dimming message from the Body Control Module for more than 5 seconds, then the VF display will default to full brightness and the DTC will set.

POSSIBLE CAUSES
CHECK CODE(S) PRESENT
DIMMING MESSAGE NOT SEEN AT RATE EXPECTED
AUTOMATIC TEMPERATURE CONTROL
BODY CONTROL MODULE - NO DIM MESSAGE TO AUTOMATIC TEMPERATURE CONTROL
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. With the DRBIII®, read the Body Computer DTCs. What code(s) does the DRBIII® display? DTC(s) other than Dimming Code RX Fail Refer to the appropriate category for the related symptom(s). Diagnose all other DTCs before diagnosing Dimming Code RX Failure. Perform BODY VERIFICATION TEST - VER 1. Dimming Code RX Failure only Go To 2 No DTC(s) reset Go To 4	All
2	**NOTE: Make sure that the Panel Dimmer switch is not set in Funeral Mode.** Turn the ignition on. Turn the Automatic Temperature Control on. Observe the VF display on the Automatic Temperature Control while turning the park lamps on. Does the VF display dim when the park lamps are turned on? Yes → No problem found at this time. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All

DIMMING CODE RX FAILURE - ATC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Monitor Display, PCI Bus Info ATC, look for VF DIM Msg Present. Does the DRB display: VF DIM Msg present: Yes? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
EVAPORATOR SENSOR FAILURE - ATC & MTC

When Monitored and Set Condition:

EVAPORATOR SENSOR FAILURE - ATC & MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the BCM detects voltage below 0.06 volts or above 4.8 volts on the evaporator temperature sensor signal input.

POSSIBLE CAUSES
EVAPORATOR TEMPERATURE SENSOR SIGNAL CKT SHORT TO VOLTAGE
EVAPORATOR TEMPERATURE SENSOR OPEN
EVAPORATOR TEMP SENSOR SIGNAL CKT OPEN
SENSOR GROUND OPEN
BODY CONTROL MODULE - EVAPORATOR TEMP SENSOR STAYS HIGH
EVAPERATOR TEMPERATURE SENSOR
INTERMITTENT WIRING PROBLEM
EVAPORATOR TEMP SENSOR SIGNAL CIRCUIT SHORT TO GROUND
EVAPORATOR TEMP SENSOR SIGNAL CKT SHORT TO SENSOR GROUND
BODY CONTROL MODULE - EVAPORATOR TEMP SENSOR STAYS LOW

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII® in Sensors, read the Evaporator Temperature Sensor voltage. Is the voltage above 5.5 volts? Yes → Go To 2 No → Go To 7	All
2	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Turn the ignition on. Measure the voltage of the Evaporator Temperature Sensor Signal circuit. Is the voltage above 5.5 volts? Yes → Repair the Evaporator Temperature Sensor Signal ckt for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All

EVAPORATOR SENSOR FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Turn the ignition on. Connect a jumper wire between the Evaporator Temperature Sensor Signal circuit and the Sensor Ground circuit. With the DRBIII® in Sensors, read the Evaporator Temperature Sensor voltage. Is the voltage 4.5 volts or above? Yes → Go To 4 No → Replace the Evaporator Temperature Sensor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Evaporator Temp Sensor Signal circuit between the BCM C2 connector and the Evaporator Temperature Sensor connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Evaporator Temperature Sensor Signal circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Sensor Ground circuit between the BCM C2 connector and the Evaporator Temp Sensor connector. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the Sensor Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
6	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Turn the ignition on. With the DRBIII® in Sensors, read the Evaporator Temperature Sensor voltage. Is the voltage 4.5 volts or above? Yes → Go To 8 No → Go To 9	All

EVAPORATOR SENSOR FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
8	Place the vehicle out of direct sunlight. Lower the windows. Allow the vehicle to come to ambient temperature. Place a thermometer in one of the instrument panel outlets, and a second thermometer in the intake duct. Disconnect the Evaporator Temperature Sensor harness connector. Turn the ignition on. Turn the Mode Control switch to the Panel or Bi-level position (Recirc off). Turn the Blower switch on high and allow it to run until both temperature readings are within 2° of one another and constant. Measure and record the Evaporator Temperature Sensor resistance. Consult the following specifications to determine if the Evaporator Temperature Sensor resistance is within the specification. 8.7K to 9.2K ohms at 12°C (53.6°F). 8.3K to 8.9K ohms at 13°C (55.4°F). 7.9K to 8.5K ohms at 14°C (57.2°F). 7.6K to 8.1K ohms at 15°C (59°F). 6.0K to 6.5k ohms at 20°C (68°F). 4.8K to 5.2K ohms at 25°C (77°F). 3.8K to 4.2K ohms at 30°C (86°F). 3.1K to 3.4K ohms at 35°C (95°F). 2.5K to 2.8K ohms at 40°C (104°F). Is the Evaporator Temperature Sensor resistance within the specification? Yes → Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for conditions causing an intermittent short or open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Evaporator Temperature Sensor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the Evaporator Temperature Sensor Signal circuit at the BCM C2 connector. Is the resistance below 1000.0 ohms? Yes → Repair the Evaporator Temperature Sensor Signal circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 10	All
10	Turn the ignition off. Disconnect the Evaporator Temperature Sensor harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Evaporator Temp Sensor Signal circuit and the Sensor Ground circuit in the Evaporator Temperature Sensor connector. Is the resistance below 1000.0 ohms? Yes → Repair the Evaporator Temperature Sensor Signal circuit for a short to the Sensor Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All

EVAPORATOR SENSOR FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
11	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
HEAD STATUS RX FAILURE - ATC

When Monitored and Set Condition:

HEAD STATUS RX FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the Automatic Temperature Control does not receive the message from the Body Control Module for more than 2 seconds. This message operates the VF Segments and LEDs in the ATC display panel.

POSSIBLE CAUSES
AUTOMATIC TEMPERATURE CONTROL
BODY CONTROL MODULE
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: Head Status RX Failure? Yes → Go To 2 No → Go To 3	All
2	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Monitor Display, PCI Bus Info ATC, look for ATC Status Msg Pres. Does the DRBIII® display: ATC Status Msg Pres: Yes? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE)

When Monitored and Set Condition:

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE)

When Monitored: With the ignition on.

Set Condition: The BCM detects an abnormally high voltage (above 4.8 volts) or an abnormally low voltage (below 0.31 volts) on the in-car temperature sensor signal.

POSSIBLE CAUSES
FUSED B(+) CIRCUIT OPEN
ASPIRATOR MOTOR DRIVER CIRCUIT SHORTED TO VOLTAGE
ASPIRATOR MOTOR DRIVER CIRCUIT OPEN
AUTOMATIC TEMPERATURE CONTROL - OPEN ASPIRATOR MOTOR
BODY CONTROL MODULE - ASPIRATOR DRIVER OPEN
BODY CONTROL MODULE - ASPIRATOR STAYS RUNNING
ASPIRATOR MOTOR DRIVER CIRCUIT SHORTED TO GROUND
IN-CAR TEMPERATURE SENSOR SIGNAL CIRCUIT SHORTED TO VOLTAGE
AUTOMATIC TEMPERATURE CONTROL - ASPIRATOR STAYS RUNNING
BODY CONTROL MODULE - SHORTED IN-CAR TEMP SENSOR SIGNAL
IN-CAR TEMPERATURE SENSOR SIGNAL CIRCUIT SHORTED TO GROUND
IN-CAR TEMPERATURE SENSOR SIGNAL CIRCUIT SHORTED TO SENSOR GROUND
IN-CAR TEMPERATURE SENSOR SIGNAL CIRCUIT OPEN
BODY CONTROL MODULE - OPEN IN-CAR TEMP SENSOR SIGNAL
AUTOMATIC TEMPERATURE CONTROL - IN-CAR SENSOR CODE
SYSTEM IS OPERATIONAL AT THIS TIME
SENSOR GROUND CIRCUIT OPEN
BODY CONTROL MODULE - OPEN SENSOR GROUND

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE) — Continued

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Completely cover the aspirator inlet (below the blower switch) with a piece of tissue paper. **NOTE: The tissue paper should hold in place, verifying that the aspirator motor is running.** Turn the ignition off. Stay in the vehicle, close all doors and ensure that all lights are off. Wait three minutes. Open and close the driver door and observe the aspirator motor. The motor should run for approximately 60 seconds after the courtesy lamps have faded out and then stop. Disconnect the Automatic Temperature Control harness connector. Turn the ignition on. Measure the voltage of the In-Car Temperature Sensor Signal circuit. The voltage should be between 4.5 volts and 5.2 volts. Select the appropriate findings. Aspirator motor inoperative Go To 2 Aspirator timer inoperative Go To 6 In-Car Temp Sense above 5.3 volts Go To 8 In-Car Temp Sense below 4.5 volts Go To 9 None of the above Go To 12	All
2	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Turn the ignition on. Measure the voltage between the Fused B(+) circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 3 No → Repair the Fused B(+) circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Disconnect the Body Control Module C1 harness connector. Turn the ignition on. Measure the voltage between the Aspirator Motor Driver circuit and ground. Is the voltage above 0.2 volts? Yes → Repair the Aspirator Motor Driver circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE) — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance of the Aspirator Motor Driver circuit between the BCM C1 connector and the ATC harness connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Aspirator Motor Driver circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Reconnect the Automatic Temperature Control harness connector. Disconnect the Body Control Module C1 harness connector. Connect a jumper wire between the Aspirator Motor Driver circuit and ground. Turn the ignition on. Check the operation of the aspirator motor fan. Is the aspirator motor running? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
6	**NOTE: Ensure that the courtesy lamps operate properly from the drivers door before proceeding. If not, refer to the Interior Lighting category for the related symptom(s).** **NOTE: This path is for the aspirator continuing to run with the key off and the doors closed.** Turn the ignition off. Disconnect the Body Control Module C1 harness connector. Turn the ignition on. Did the aspirator motor stop running? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance between ground and the Aspirator Motor Driver circuit. Is the resistance below 10K ohms? Yes → Repair the Aspirator Motor Driver circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE) — Continued

TEST	ACTION	APPLICABILITY
8	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Disconnect the Body Control Module C1 harness connector. Turn the ignition on. Measure the voltage between the In-Car Temperature Sensor Signal circuit and ground. Is the voltage above 0.2 volts? Yes → Repair the In-Car Temperature Sensor Signal circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Body Control Module C1 harness connector. Disconnect the Automatic Temperature Control harness connector. Measure the resistance between ground and the In-Car Temperature Sensor Signal circuit. Is the resistance below 10K ohms? Yes → Repair the In-Car Temperature Sensor Signal circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 10	All
10	Turn the ignition off. Disconnect the Body Control Module C1 & C2 harness connectors. Disconnect the Automatic Temperature Control harness connector. Measure the resistance between the Sensor Ground circuit and the In-Car Temperature Sensor Signal circuit in the ATC harness connector. Is the resistance below 10K ohms? Yes → Repair the In-Car Temperature Sensor Signal circuit for a short to the Sensor Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Turn the ignition off. Disconnect the Body Control Module C1 harness connector. Disconnect the Automatic Temperature Control harness connector. Back probe one voltmeter lead to the In-Car Temperature Sensor Signal ckt in the BCM C1 harness connector and the other lead to ground. Reconnect the BCM C1 and C2 harness connectors. Turn the ignition on and observe the voltmeter. Did the voltage go above 4.5 volts? Yes → Repair the In-Car Temperature Sensor Signal circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

IN CAR TEMP SENSOR FAILURE (ATC ASPIRATOR FAILURE) — Continued

TEST	ACTION	APPLICABILITY
12	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Close all doors and ensure that all lights are off. Wait one minute to allow the BCM to go to sleep. Measure the resistance between ground and the Sensor Ground circuit. Is the resistance below 10.0 ohms? Yes → Go To 13 No → Go To 14	All
13	Turn the ignition off. Reconnect the Automatic Temperature Contorl harness connector. Turn the ignition on. With the DRBIII®, erase Body Computer DTC's. With the DRBIII®, read Body Computer DTC's. Does the DRBIII® display: In-Car Temp Sensor Failure? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → There is no problem found at this time. The aspirator and in-car temp sensor should be fully operational. Refer to the wiring diagrams located in the service information to help isolate a possible intermittent wiring problem. Perform BODY VERIFICATION TEST - VER 1.	All
14	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Back probe one ohmmeter lead to the Sensor Ground ckt in the BCM C2 harness connector and the other lead to ground. Reconnect the BCM C2 harness connector. Close all doors and ensure that all lights are off. Wait one minute to allow the BCM to go to sleep. Measure the resistance between ground and the Sensor Ground circuit. Is the resistance below 10.0 ohms? Yes → Repair the Sensor Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

MODE DOOR FEEDBACK FAILURE - ATC & MTC
MODE DOOR STALL TEST FAILURE - ATC & MTC

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be MODE DOOR FEEDBACK FAILURE - ATC & MTC.

When Monitored and Set Condition:

MODE DOOR FEEDBACK FAILURE - ATC & MTC

When Monitored: With the ignition on.

Set Condition: This DTC will set if the BCM detects voltage below 0.06 volts or above 4.8 volts on the Blend Door Feedback Signal input/Mode Door Feedback Signal input.

MODE DOOR STALL TEST FAILURE - ATC & MTC

When Monitored: During HVAC motor calibration.

Set Condition: This DTC will set if the BCM is unable to detect the end of travel for the mode door.

POSSIBLE CAUSES
CHECK CODE(S) PRESENT
BLEND DOOR FEEDBACK/STALLTEST FAILURE DTC PRESENT
ADDITIONAL FEEDBACK/STALL TEST FAILURE DTCS PRESENT
MODE DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO THE DOOR DRIVER CIRCUIT(S)
MODE DOOR, LINKAGE, ACTUATOR
MODE DOOR DRIVER CIRCUIT OPEN
COMMON DOOR DRIVER CIRCUIT OPEN
BODY CONTROL MODULE
SENSOR GROUND CIRCUIT OPEN
BODY CONTROL MODULE
5 VOLT SUPPLY CIRCUIT SHORTED TO GROUND
5 VOLT SUPPLY CIRCUIT OPEN
5 VOLT SUPPLY CIRCUIT SHORTED TO SENSOR GROUND CIRCUIT
BODY CONTROL MODULE
MODE DOOR, LINKAGE, ACTUATOR
MODE DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO GROUND
MODE DOOR FEEDBACK SIGNAL CIRCUIT OPEN
MODE DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO SENSOR GROUND CIRCUIT

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

POSSIBLE CAUSES
BODY CONTROL MODULE
5 VOLT SUPPLY CIRCUIT SHORTED TO VOLTAGE
MODE DOOR FEEDBACK SIGNAL CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. What code(s) does the DRBIII® display? Other than Feedback or Stall Test Fail Refer to the appropriate category for the related symptom(s). Diagnose all other DTCs before diagnosing Stall Test or Feedback Failures. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. Blend Door Feedback/Stall Test only Return to the Symptom List and choose the symptom(s). Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. More than one Feedback/Stall Test Fail Go To Test #2 and follow the directions. However, before making any repairs, perform the diagnostic procedures for each door that set a Feedback/Stall Test Failure DTC. Doing so will identify all possible conditions causing the individual DTCs to set. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. Mode Door Feedback/Stall Test only Go To 2 No DTC(s) reset Go To 19	All
2	Turn the ignition on. With the DRBIII® in Sensor Display, read the Mode Door voltage. What voltage is present? Btwn 0.07 to 4.7 volts Go To 3 Less than 0.07 volts Go To 9 Above 4.7 volts Go To 17	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Turn the ignition on. Measure the voltage of the 5 Volt Supply circuit between the Sensor Ground circuit and the 5 Volt Supply circuit. Is the voltage above 4.5 volts? Yes → Go To 4 No → Go To 8	All
4	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Mode Door Feedback Signal circuit and each of the Door Driver circuits (Blend, Mode, Recirc, & Common). Is the resistance below 10K ohms on any of the circuits? Yes → Repair all door driver circuits with a resistance below 10K ohms for a short to the Mode Door Feedback Signal circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Reconnect the BCM C2 harness connector. Disconnect the Mode Door Actuator harness connector. While back probing, connect a test light between the Mode Door Driver circuit and the Common Door Driver circuit in the Mode Door Actuator harness connector. Start the engine. With the DRBIII®, select Body, Body Computer, System Tests, Actuate Mode Doors. Select Mode Door. While observing the test light, press and hold the DRB right arrow key for several seconds. While observing the test light, press and hold the DRB left arrow key for several seconds. Is the test light on while the right and left arrow keys are pressed? Yes → Inspect for missing & broken actuator linkage. Check door for binding & loss of full range. Inspect housing for missing or broken stops. Repair as necessary. If linkage and door are okay, replace Mode Door Actuator in accordance with Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
6	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Mode Door Driver circuit between the Mode Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 7 No → Repair the Mode Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Common Door Driver circuit between the Mode Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Common Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Sensor Ground circuit between the Mode Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Sensor Ground circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Turn the ignition on. Measure the voltage of the 5 Volt Supply circuit. What voltage is present? Less than 4.5 volts. Go To 10 4.5 to 5.5 volts Go To 13	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
10	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the 5 Volt Supply circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the 5 Volt Supply circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the 5 Volt Supply circuit between the Mode Door Actuator harness connector and the BCM C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 12 No → Repair the 5 Volt Supply circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
12	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the 5 Volt Supply circuit and the Sensor Ground circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the 5 Volt Supply circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
13	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Connect a jumper wire between the Mode Door Feedback Signal circuit and the 5 Volt Supply circuit. Turn the ignition on. With the DRBIII® in Sensor Display, read the Mode Door voltage. Is the voltage between 4.5 & 5.5 volts? Yes → Inspect for missing & broken actuator linkage. Check door for binding & loss of full range. Inspect housing for missing or broken stops. Repair as necessary. If linkage and door are okay, replace Mode Door Actuator in accordance with Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 14	All
14	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between ground and the Mode Door Feedback Signal circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the Mode Door Feedback Signal circuit for a short to ground. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 15	All
15	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance of the Mode Door Feedback Signal circuit between the BCM C2 harness connector and the Mode Door Actuator harness connector. Is the resistance below 5.0 ohms? Yes → Go To 16 No → Repair the Mode Door Feedback Signal circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
16	Turn the ignition off. Disconnect the Mode Door Actuator harness connector. Disconnect the Body Control Module C2 harness connector. Measure the resistance between the Mode Door Feedback Signal circuit and the Sensor Ground circuit in the BCM C2 harness connector. Is the resistance below 10K ohms? Yes → Repair the Mode Door Feedback Signal circuit for a short to the Sensor Ground circuit. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
17	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the 5 volt supply circuit. Is the voltage above 0.2 volts? Yes → Repair the 5 Volt Supply circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Go To 18	All
18	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Turn the ignition on. Measure the voltage of the Mode Door Feedback Signal circuit. Is the voltage above 0.2 volts? Yes → Repair the Mode Door Feedback Signal circuit for a short to voltage. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

MODE DOOR FEEDBACK FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
19	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
RECIRCULATION DOOR STALL TEST FAILURE - ATC & MTC

When Monitored and Set Condition:

RECIRCULATION DOOR STALL TEST FAILURE - ATC & MTC

When Monitored: During HVAC motor calibration.

Set Condition: This DTC will set if the BCM is unable to detect the end of travel for one or more of the HVAC doors.

POSSIBLE CAUSES
BODY CONTROL MODULE
RECIRCULATION DOOR DRIVER CIRCUIT OPEN
COMMON DOOR DRIVER CIRCUIT OPEN
RECIRCULATION DOOR, LINKAGE, ACTUATOR
WIRING CAUSING INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. Start the engine. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display: Recirc Door Stall Test Failure? Yes → Go To 2 No → Go To 5	All

RECIRCULATION DOOR STALL TEST FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
2	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Using a 12-volt test light, back probe between the Recirculation Door Driver circuit and the Common Door Driver circuit in the BCM C2 harness connector. Reconnect the Body Control Module C2 harness connector. Turn the ignition on. With the DRBIII®, select Body, Body Computer, System Tests then Actuate Mode Doors. Select Recirc Door. While observing the test light, press and hold the DRB right arrow key for several seconds. While observing the test light, press and hold the DRB left arrow key for several seconds. Is the test light on while the right and left arrow keys are pressed? Yes → Go To 3 No → Replace and program the Body Control Module in accordance with the Service Information. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Disconnect the Recirculation Door Actuator harness connector. Measure the resistance of the Recirculation Door Driver circuit between the BCM C2 harness connector and the Recirculation Door Actuator harness connector. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the Recirculation Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect the Body Control Module C2 harness connector. Disconnect the Recirculation Door Actuator harness connector. Measure the resistance of the Common Door Driver circuit between the BCM C2 harness connector and the Recirculation Door Actuator harness connector. Is the resistance below 5.0 ohms? Yes → Inspect for missing & broken actuator linkage. Check door for binding & loss of full range. Inspect housing for missing or broken stops. Repair as necessary. If linkage and door are okay, replace Recirc Door Actuator in accordance with Service Info. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Common Door Driver circuit for an open. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1.	All

RECIRCULATION DOOR STALL TEST FAILURE - ATC & MTC — Continued

TEST	ACTION	APPLICABILITY
5	Turn the ignition off. **NOTE: Visually inspect the related wiring harness and circuits. Look for any chafed, pierced, pinched, or partially broken wires.** **NOTE: Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.** **NOTE: Refer to any Technical Service Bulletins (TSB) that may apply.** Were any problems found? Yes → Repair as necessary. Calibration must be performed after repair/replacement is completed. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
SUN LOAD SENSOR FAILURE - ATC

When Monitored and Set Condition:

SUN LOAD SENSOR FAILURE - ATC

When Monitored: With the ignition on.

Set Condition: The BCM detects an abnormally low voltage on the sun sensor signal.

POSSIBLE CAUSES
SUN SENSOR LOW
SUN SENSOR SIGNAL CIRCUIT SHORTED TO GROUND
SUN SENSOR SIGNAL CIRCUIT SHORTED TO SENSOR GROUND
BODY CONTROL MODULE - SUN SENSE LOW

TEST	ACTION	APPLICABILITY
1	**NOTE: It is advisable to perform the ATC System Test before attempting to diagnose this trouble code.** Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Turn the ignition on. With the DRBIII® in Sensor Display, read the Sun Sensor voltage. Is the voltage below 0.2 volts? Yes → Go To 2 No → Replace the Sun Sensor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Disconnect the Body Control Module C1 & C2 harness connectors. Measure the resistance between ground and the Sun Sensor Signal circuit. Is the resistance below 100.0 ohms? Yes → Repair the Sun Sensor Signal circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Disconnect the Body Control Module C1 & C2 harness connectors. Measure the resistance between the Sun Sensor Signal circuit and the Sensor Ground circuit in the Sun Sensor harness connector. Is the resistance below 100.0 ohms? Yes → Repair the Sun Sensor Signal circuit for a short to the Sensor Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

SUN LOAD SENSOR FAILURE - ATC — Continued

TEST	ACTION	APPLICABILITY
4	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***A/C SYSTEM TEST - MTC**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE PCM AND THE BCM
CHECK FOR HVAC RELATD DTCS IN THE PCM AND THE BCM
MONITOR THE DRBIII® FOR HVAC DTCS
CHECK FOR HVAC RELATD DTCS IN THE PCM
MANUAL A/C SYSTEM TEST

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, attempt to communicate with the Powertrain Control Module. With the DRBIII®, attempt to communicate with the Body Control Module. Was the DRBIII® able to communicate with the PCM and the BCM? Yes → Go To 2 No → Refer to the communication category for the related symptom. Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRBIII®, read Powertrain Computer DTC's. With the DRBIII®, read Body Computer DTC's. Are any HVAC related DTCs present? Yes → Refer to the appropriate catagory for the related symptom. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition on. Turn the Rear Defogger off. Turn the Blend Control switch to the full cold position. Turn the Mode Control switch to the Panel - Heater position. Turn the Blower switch off. With the DRBIII®, record and erase Powertrain Computer DTC's. With the DRBIII®, record and erase Body Computer DTCs. Start the engine. **NOTE: Proceed directly to the conclusion of this test and answer Yes to the question if the DRBIII® displays any HVAC related DTC(s) while performing anyone of the following steps.** Monitor the DRBIII® for HVAC related DTCs in the Body Computer while performing the following. Turn the Blower switch on. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. Slowly turn the Blend Control switch from full cold to full hot, then back to full cold. Turn the Mode Control switch to each position, waiting 20 seconds in each position. Press and release the Rear Defogger button, wait 20 seconds, then press and release it again to turn the Rear Defogger off. Does the DRBIII® display any HVAC related Body Computer DTCs? Yes → Return to the Symptom List and choose the code(s). If multiple codes appear, repair any that relate to a short circuit first. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*A/C SYSTEM TEST - MTC — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, read PCM DTC's. Are any HVAC related DTCs present? Yes → Refer to the appropriate catagory for the related symptom. Perform BODY VERIFICATION TEST - VER 1. No → Recheck the climate control system performance. Refer to Service Information for additional information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ATC SYSTEM TEST**

POSSIBLE CAUSES
ATTEMPT TO COMMUNICATE WITH THE PCM, BCM, & ATC
CHECK FOR HVAC RELATD DTCS IN THE PCM & BCM
MONITOR THE DRBIII® ACTIVE DTCS
CHECK FOR HVAC RELATD DTCS IN THE PCM
A/C SYSTEM TESTING

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, attempt to communicate with the Powertrain Control Module (PCM). With the DRBIII®, attempt to communicate with the Body Control Module (BCM). With the DRBIII®, attempt to communicate with the Automatic Temperature Control (ATC). Was the DRBIII® able to communicate with the PCM, BCM & ATC? Yes → Go To 2 No → Refer to the communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRBIII®, read Powertrain Computer DTC's. With the DRBIII®, read Body Computer DTC's. Are any HVAC related DTCs present? Yes → Refer to the appropriate category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition on. With the DRBIII®, record and erase the Body Computer DTC's. Start the engine. **NOTE: Monitor the DRBIII® for active Body Computer DTCs while performing the following test steps. If a DTC appears during any test step, proceed to the conclusion question.** **NOTE: NOTE: If multiple DTCs appear, repair any that relate to a short circuit first.** Slowly turn the blower control to each blower speed and leave it on HI speed. Set the temperature to Lo. Wait 30 seconds before proceeding to the next step. Set the temperature to Hi. Wait 30 seconds before proceeding to the next step. Set the temperature to Lo. Wait 30 seconds before proceeding to the next step. Push and then release each mode button (Auto; Off; A/C; Recirc; Panel; Floor; Mix; Bilevel; EBL; & Defrost), waiting 30 seconds before pressing each button. With the DRBIII® in Miscellaneous, actuate Calibrate HVAC Door Motors. When calibration is complete, read the Body Computer DTCs. Slowly return the blower control to LO speed. Does the DRBIII® display any DTCs? Yes → Return to the Symptom List and choose the symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*ATC SYSTEM TEST — Continued

TEST	ACTION	APPLICABILITY
4	With the DRBIII®, read PCM DTC's. Are any HVAC related DTCs present? Yes → Refer to the appropriate catagory for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Recheck the climate control system performance. Refer to Service Information for additional information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*ATC TEMPERATURE CONTROL INCORRECT IN SUN/SHADE

POSSIBLE CAUSES
BODY CONTROL MODULE
SUN SENSOR SIGNAL CIRCUIT SHORTED TO VOLTAGE
BODY CONTROL MODULE
SUN SENSOR OPEN OR HIGH
SENSOR GROUND CIRCUIT OPEN
SUN SENSOR SIGNAL CIRCUIT OPEN
BODY CONTROL MODULE - SUN SENSOR OPEN OR HIGH

TEST	ACTION	APPLICABILITY
1	Perform the *ATC System Test found in the Heating & A/C Category. Repair all Diagnostic Trouble Codes found while performing this test. Verify that the symptom ATC Temperature Control Incorrect In Sun/Shade is still present. Is the symptom still present? Yes → Go To 2 No → Test Complete.	All
2	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Turn the ignition on. With the DRBIII® in Sensor Display, read the Sun Sensor voltage. Is the voltage below 4.8 volts? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Turn the ignition on. Measure the voltage of the Sun Sensor Signal circuit. Is the voltage above 5.2 volts? Yes → Go To 4 No → Go To 5	All

*ATC TEMPERATURE CONTROL INCORRECT IN SUN/SHADE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Disconnect the Body Control Module C1 harness connector. Turn the ignition on. Measure the voltage of the Sun Sensor Signal circuit. Is the voltage above 0.2 volts? Yes → Repair the Sun Sensor Signal circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Connect a jumper wire between the Sun Sensor Signal circuit and the Sensor Ground circuit in the Sun Sensor harness connector. Turn the ignition on. With the DRBIII® in Sensor Display, read the Sun Sensor voltage. Is the Sun Sensor voltage below 0.2 volts? Yes → Replace the Sun Sensor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Connect a jumper wire between the Sun Sensor Signal circuit and ground. Turn the ignition on. With the DRBIII® in Sensor Display, read the Sun Sensor voltage. Is the Sun Sensor voltage below 0.2 volts? Yes → Repair the Sensor Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the Sun Sensor/VTSS LED harness connector. Disconnect the Body Control Module C1 harness connectors. Measure the resistance of the Sun Sensor Signal circuit between the BCM C1 harness connector and the Sun Sensor harness connector. Is the resistance below 5.0 ohms? Yes → Go To 8 No → Repair the Sun Sensor Signal circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*BACK LIGHTING INOPERATIVE - ATC & MTC

POSSIBLE CAUSES
BACK LIGHTING INOPERATIVE

TEST	ACTION	APPLICABILITY
1	View Repair. Repair Refer to I/P Illumination Lamps Not Working Properly in the Interior Lighting category for the diagnostic procedure. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*BLOWER MOTOR INOPERATIVE - ATC

POSSIBLE CAUSES
ATC BLOWER STALL FAULT PRESENT
JB FUSE #1
FUSED IGNITION SWITCH OUTPUT CIRCUIT SHORTED TO GROUND
BLOWER MOTOR SUPPLY CIRCUIT SHORTED TO BLOWER MOTOR GROUND CIRCUIT
BLOWER MOTOR SUPPLY CIRCUIT SHORTED TO GROUND
BLOWER MOTOR SHORTED TO GROUND
BLOWER POWER MODULE SHORTED TO GROUND
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
GROUND CIRCUIT OPEN
BLOWER MOTOR CONTROL CIRCUIT SHORTED TO VOLTAGE
BLOWER MOTOR CONTROL CIRCUIT OPEN
BLOWER MOTOR SUPPLY CIRCUIT OPEN
BLOWER MOTOR GROUND CIRCUIT OPEN
BLOWER POWER MODULE
BODY CONTROL MODULE
BLOWER MOTOR
BLOWER POWER MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII® read Body Computer DTCs. Does the DRBIII® display: ATC Blower Stall Fault? Yes → Refer to symptom ATC Blower Stall Fault in the Heating & A/C category. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Remove and inspect JB Fuse #1. Is the fuse open? Yes → Go To 3 No → Go To 8	All

*BLOWER MOTOR INOPERATIVE - ATC — Continued

TEST	ACTION	APPLICABILITY
3	Replace JB Fuse #1. Turn the ignition on. Operate the blower motor in all speeds. Start the engine and operate the ATC system in all modes and speeds. Does the blower motor operate properly without blowing the fuse? Yes → Refer to the wiring diagrams located in the service information to help isolate a possible intermittent short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Measure the resistance between ground and the Fused Ignition Switch Output circuit. Is the resistance below 10K ohms? Yes → Repair the Fused Ignition Switch Output circuit for a short to ground. Replace JB Fuse #1. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the Blower Power Module C2 harness connector. Disconnect the Blower Motor harness connector. Measure the resistance between the Blower Motor Supply circuit and the Blower Motor Ground circuit. Is the resistance below 10K ohms? Yes → Repair the Blower Motor Supply circuit for a short to the Blower Motor Ground circuit. Replace JB Fuse #1. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Blower Power Module C2 harness connector. Disconnect the Blower Motor harness connector. Measure the resistance between ground and the Blower Motor Supply circuit. Is the resistance below 10K ohms? Yes → Repair the Blower Motor Supply circuit for a short to ground. Replace JB Fuse #1. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All

*BLOWER MOTOR INOPERATIVE - ATC — Continued

TEST	ACTION	APPLICABILITY
7	Turn the ignition off. Replace JB Fuse #1. Reconnect the Blower Motor harness connector. Disconnect the Blower Power Module C1 harness connector. Disconnect the Blower Power Module C2 harness connector. Connect a jumper wire between the Fused Ignition Switch Output circuit in the Blower Power Module C1 harness connector and the Blower Motor Supply circuit in the Blower Power Module C2 harness connector. Connect a jumper wire between the Ground circuit in the Blower Power Module C1 harness connector and the Blower Motor Ground circuit in the Blower Power Module C2 harness connector. Turn the ignition on. Does the Blower Motor operate at Hi speed without blowing the fuse? Yes → Replace the Blower Power Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Blower Motor in accordance with the Service Information. Replace JB Fuse #1. Perform BODY VERIFICATION TEST - VER 1.	All
8	Ensure JB Fuse #1 is installed. Disconnect the Blower Power Module C1 harness connector. Turn the ignition on. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Using a 12-volt test light connected to ground, back probe the Fused Ignition Switch Output circuit in the Blower Power Module C1 harness connector. Does the test light illuminate brightly? Yes → Go To 9 No → Repair the Fused Ignition Switch Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Measure the resistance between ground and the Ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 10 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
10	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Disconnect the Body Control Module C1 harness connector. Turn the ignition on. Measure the voltage between the Blower Motor Control circuit and ground. Is the voltage above 0.2 volts? Yes → Repair the Blower Motor Control circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All

*BLOWER MOTOR INOPERATIVE - ATC — Continued

TEST	ACTION	APPLICABILITY
11	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance of the Blower Motor Control circuit between the Blower Power Module C1 harness connector and the Body Control Module C1 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 12 No → Repair the Blower Motor Control circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
12	Turn the ignition off. Disconnect the Blower Power Module C2 harness connector. Disconnect the Blower Motor harness connector. Measure the resistance of the Blower Motor Supply circuit between the Blower Motor harness connector and the Blower Power Module C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 13 No → Repair the Blower Motor Supply circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
13	Turn the ignition off. Disconnect the Blower Power Module C2 harness connector. Disconnect the Blower Motor harness connector. Measure the resistance of the Blower Motor Ground circuit between the Blower Motor harness connector and the Blower Power Module C2 harness connector. Is the resistance below 5.0 ohms? Yes → Go To 14 No → Repair the Blower Motor Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
14	Turn the ignition off. Reconnect the Blower Motor harness connector. Reconnect the Blower Power Module C1 and C2 harness connectors. Back probe one voltmeter lead to the Blower Motor Control ckt in the Body Control Module C1 harness connector and the other lead to ground. Reconnect the Body Control Module C1 harness connector. Start the engine. Turn the Automatic Temperature Control off. Observe the voltmeter. Is the voltage above 11.0 volts? Yes → Go To 15 No → Replace the Blower Power Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*BLOWER MOTOR INOPERATIVE - ATC — Continued

TEST	ACTION	APPLICABILITY
15	Turn the ignition off. Reconnect all previously disconnected components. Connect the DRBIII® Scope Input Cable CH7058, Cable-To-Probe Adapter CH7062, and the Red (+) and Black (-) X1 Test Leads CH7030 to the DRBIII®. Select the following from the DRBIII® menu: PEP Module Tools; Lab Scope; Live Data; and Lab Scope. Set the time to 0.4ms/Div. Set the voltage range to +20.0v. Set the Offset to 4.00v. Set the Probe to X1. Start the engine. Turn Automatic Temperature Control on. Using the Red (+) X1 Test Lead, back probe the Blower Motor Control circuit in the Blower Power Module C1 harness connector. Connect the Black (-) X1 Test Lead to ground. **NOTE: Over the Blower Motor Control circuit, the Blower Power Module provides a battery supply voltage signal to the Body Control Module (BCM) while the BCM provides a variable duty cycle ground based on input from the blower control switch.** **NOTE: When the blower control switch is set to Lo speed, the BCM provides a short duty cycle (less time grounding the signal). As higher blower speeds are requested, the BCM increases the duty cycle (more time grounding the signal).** **NOTE: When the blower control switch is set to High speed, the duty cycle increases to where the signal pattern is a flat line on ground.** Set the blower control to LO speed and then slowly turn it to HI speed while observing the DRBIII® display. The duty cycle pattern should change smoothly as the blower switch is turned from Lo to High. The high part of the cycle will decrease as the blower speed increases. Does the DRBIII® display the signal as described above? Yes → Go To 16 No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
16	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Disconnect the Blower Power Module C2 harness connector. Connect a jumper wire between the Fused Ignition Switch Output circuit in the Blower Power Module C1 harness connector and the Blower Motor Supply circuit in the Blower Power Module C2 harness connector. Connect a jumper wire between the Ground circuit in the Blower Power Module C1 harness connector and the Blower Motor Ground circuit in the Blower Power Module C2 harness connector. Turn the ignition on. Does the Blower Motor operate at full speed? Yes → Replace the Blower Power Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Blower Motor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*BLOWER MOTOR INOPERATIVE - MTC

POSSIBLE CAUSES
JUNCTION BLOCK FUSE #1
FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT SHORTED TO GROUND
BLOWER MOTOR SHORTED TO GROUND
GROUND CIRCUIT OPEN
A/C - HEATER CONTROL OPEN
BLOWER MOTOR DRIVER CIRCUIT OPEN
RESISTOR-OPEN HI BLOWER MOTOR DRIVER
BLOWER MOTOR DRIVER CIRCUIT OPEN
FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT OPEN
BLOWER MOTOR OPEN

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Remove and inspect Junction Block Fuse #1. Is the fuse open? Yes → Go To 2 No → Go To 4	All
2	Turn the ignition off. Replace Junction Block Fuse #1. Turn the ignition on. Turn the blower on and operate it in all speeds and modes. Does the blower motor operate properly without blowing the fuse? Yes → Check the Fused Ignition Switch Output (RUN) circuit for an intermittent short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Turn the Blower switch off. Disconnect the Blower Motor harness connector. Measure the resistance between ground and the Fused Ignition Switch Output (RUN) circuit. Is the resistance below 10K ohms? Yes → Repair the Fused Ignition Switch Output (RUN) circuit for a short to ground and replace the fuse. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Blower Motor and fuse in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*BLOWER MOTOR INOPERATIVE - MTC — Continued

TEST	ACTION	APPLICABILITY
4	Ensure Junction Block Fuse #1 is installed. Turn the Blower switch off. Disconnect the Blower Motor Resistor Block harness connector. Turn the ignition on. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Using a 12-volt test light connected to ground, back probe the Blower Motor Driver circuit in the Blower Motor Resistor Block harness connector. Does the test light illuminate brightly? Yes → Go To 5 No → Go To 8	All
5	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Connect a jumper wire between ground and the High Blower Motor Driver circuit in the A/C - Heater Control C2 harness connector. Turn the ignition on. Does the blower motor run at high speed? Yes → Go To 6 No → Go To 7	All
6	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Measure the resistance between ground and the Ground circuit. Is the resistance below 5.0 ohms? Yes → Replace the A/C - Heater Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the resistance of the High Blower Motor Driver circuit between the A/C - Heater Control C2 harness connector and the Blower Motor Resistor Block harness connector. Is the resistance below 5.0 ohms? Yes → Replace the Blower Motor Resistor Block in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the High Blower Motor Driver circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*BLOWER MOTOR INOPERATIVE - MTC — Continued

TEST	ACTION	APPLICABILITY
8	Turn the Blower switch off. Turn the ignition on. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Using a 12-volt test light connected to ground, back probe the Blower Motor Driver circuit in the Blower Motor harness connector. Does the test light illuminate brightly? Yes → Repair the Blower Motor Driver circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Turn the Blower switch off. Turn the ignition on. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Using a 12-volt test light connected to ground, back probe the Fused Ignition Switch Output (RUN) circuit in the Blower Motor harness connector. Does the test light illuminate brightly? Yes → Replace the Blower Motor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Fused Ignition Switch Output (RUN) circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*BLOWER MOTOR SPEEDS INCORRECT - MTC

POSSIBLE CAUSES
BLOWER MOTOR DRIVER CIRCUIT(S) SHORTED TO GROUND
BLOWER MOTOR DRIVER CIRCUIT SHORTED TO GROUND
A/C - HEATER CONTROL
BLOWER MOTOR DRIVER CIRCUIT(S) SHORTED TO VOLTAGE
BLOWER MOTOR DRIVER CIRCUITS SHORTED TOGETHER
A/C - HEATER CONTROL - SPEEDS INCORRECT
BLOWER MOTOR DRIVER CIRCUIT(S) OPEN
BLOWER MOTOR RESISTOR BLOCK - OPEN SPEED

TEST	ACTION	APPLICABILITY
1	Turn the Blower switch off. Turn the ignition on. Does the blower run? Yes → Go To 2 No → Go To 4	All
2	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the resistance between ground and each of the Blower Motor Driver circuits. Is the resistance below 10K ohms on any of the circuits? Yes → Repair the Blower Motor Driver circuit(s) for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Blower Motor harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the resistance between ground and the Blower Motor Driver circuit in the Blower Motor harness connector. Is the resistance below 10K ohms? Yes → Repair the Blower Motor Driver circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the A/C - Heater Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*BLOWER MOTOR SPEEDS INCORRECT - MTC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Turn the ignition on. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Using a 12-volt test light connected to ground, back probe each of the Blower Motor Driver circuits (cavities 2, 3, 7, and 10) in the A/C - Heater Control C2 harness connector. Does the test light illuminate brightly on each circuit? Yes → Go To 5 No → Go To 7	All
5	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the voltage of each of the Blower Motor Driver circuits (cavities 2, 3, 7, and 10). Is there any voltage present? Yes → Repair the Blower Motor Driver circuit(s) for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the A/C - Heater Control C2 harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the resistance between the Low Blower Motor Driver circuit and the M1, M2, and High Blower Motor Driver circuits. Measure the resistance between the M1 Blower Motor Driver circuit and the M2 and High Blower Motor Driver circuits. Measure the resistance between the M2 Blower Motor Driver circuit and the High Blower Motor Driver circuit. Is the resistance below 10K ohms between any of the circuits? Yes → Repair the shorted Blower Motor Driver circuits. Perform BODY VERIFICATION TEST - VER 1. No → Replace the A/C - Heater Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Turn the Blower switch to the off position. Disconnect the A/C - Heater Control C2 harness connector. Disconnect the Blower Motor Resistor Block harness connector. Measure the resistance of each Blower Motor Driver circuit between the Blower Motor Resistor Block harness connector and the A/C - Heater Control C2 harness connector. Is the resistance below 5.0 ohms on each of the circuits? Yes → Replace the Blower Motor Resistor Block in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Blower Motor Driver circuit(s) for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*BLOWER RUNS AT ONLY ONE SPEED - ATC

POSSIBLE CAUSES
CHECK CODE(S) PRESENT
AUTOMATIC TEMPERATURE CONTROL
BLOWER MOTOR CONTROL CIRCUIT SHORTED TO GROUND
BODY CONTROL MODULE
BLOWER POWER MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display any DTCs? Yes → Refer to the appropriate category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Monitor Display, PCI Bus Info ATC, look for Fan Req To BCM. Does the DRB display: Fan Req To BCM: Yes? Yes → Go To 3 No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Blower Power Module C1 harness connector. Disconnect the Body Control Module C1 harness connector. Measure the resistance between ground and the Blower Motor Control circuit. Is the resistance below 10K ohms? Yes → Repair the Blower Motor Control circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*BLOWER RUNS AT ONLY ONE SPEED - ATC — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Reconnect all previously disconnected components. Connect the DRBIII® Scope Input Cable CH7058, Cable-To-Probe Adapter CH7062, and the Red (+) and Black (-) X1 Test Leads CH7030 to the DRBIII®. Select the following from the DRBIII® menu: PEP Module Tools; Lab Scope; Live Data; and Lab Scope. Set the time to 0.4ms/Div. Set the voltage range to +20.0v. Set the Offset to 4.00v. Set the Probe to X1. Start the engine. Turn Automatic Temperature Control on. Using the Red (+) X1 Test Lead, back probe the Blower Motor Control circuit in the Blower Power Module C1 harness connector. Connect the Black (-) X1 Test Lead to ground. **NOTE: Over the Blower Motor Control circuit, the Blower Power Module provides a battery supply voltage signal to the Body Control Module (BCM) while the BCM provides a variable duty cycle ground based on input from the blower control switch.** **NOTE: When the blower control switch is set to Lo speed, the BCM provides a short duty cycle (less time grounding the signal). As higher blower speeds are requested, the BCM increases the duty cycle (more time grounding the signal).** **NOTE: When the blower control switch is set to High speed, the duty cycle increases to where the signal pattern is a flat line on ground.** Set the blower control to LO speed and then slowly turn it to HI speed while observing the DRBIII® display. The duty cycle pattern should change smoothly as the blower switch is turned from Lo to High. The high part of the cycle will decrease as the blower speed increases. Does the DRBIII® display the signal as described above? Yes → Replace the Blower Power Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***VF SEGMENTS STUCK ON ONE SETTING, OR DISPLAYS --F, OR SOME OR ALL INOPERATIVE**

POSSIBLE CAUSES
CHECK CODE(S) PRESENT
AUTOMATIC TEMPERATURE CONTROL
BODY CONTROL MODULE
BODY CONTROL MODULE
AUTOMATIC TEMPERATURE CONTROL
AUTOMATIC TEMPERATURE CONTROL
AUTOMATIC TEMPERATURE CONTROL
BODY CONTROL MODULE
BODY CONTROL MODULE
AUTOMATIC TEMPERATURE CONTROL
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
GROUND CIRCUIT(S) OPEN
AUTOMATIC TEMPERATURE CONTROL

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Computer DTC's. Cycle the ignition switch. With the DRBIII®, read the Body Computer DTCs. Does the DRBIII® display any DTCs? Yes → Refer to the appropriate category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Which symptom is present? ATC Panel displays --F Go To 3 Some VF Segmnts/LEDs fail to illuminate Go To 4 Dsply won't change when pressing buttons Go To 5 All VF Segmnts & LEDs fail to illuminate Go To 9	All

*VF SEGMENTS STUCK ON ONE SETTING, OR DISPLAYS --F, OR SOME OR ALL INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Monitor Display, PCI Bus Info ATC, look for ATC Status Msg Pres. Does the DRBIII® display: ATC Status Msg Pres: Yes? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Actuators, select VFD and observe the ATC display. Are all of the VF segments on the ATC display illuminated? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Inputs/Outputs, read the switch states while pressing the Auto; Off; A/C; Recirc; Panel; Floor; Mix; Bilevel; EBL; and Defrost buttons on the ATC one at a time. Does each switch state change from Open to Closed accordingly? Yes → Go To 6 No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition on. While observing the ATC temperature display, press and hold the Temp Up button for several seconds. While observing the ATC temperature display, press and hold the Temp Down button for several seconds. Does the temperature display change accordingly? Yes → Go To 7 No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Monitor Display, PCI Bus Info ATC, look for ATC Status Msg Pres. Does the DRBIII® display: ATC Status Msg Pres: Yes? Yes → Go To 8 No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*VF SEGMENTS STUCK ON ONE SETTING, OR DISPLAYS --F, OR SOME OR ALL INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
8	Turn the ignition on. With the DRBIII® in Automatic Temperature Control, Actuators, select VFD and observe the ATC display. Are all of the VF segments on the ATC display illuminated? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Turn the ignition on. Measure the voltage between the Fuse Ignition Switch Output circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 10 No → Repair the Fused Ignition Switch Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
10	Turn the ignition off. Disconnect the Automatic Temperature Control harness connector. Close all doors and ensure all lights are off. Wait one minute for the Body Control Module to go to sleep. Measure the resistance between ground and each of the Ground circuits. Is the resistance below 10.0 ohms on both circuits? Yes → Replace the Automatic Temperature Control in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Ground circuit with a resistance above 10.0 ohms for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***HORN INOPERATIVE**

POSSIBLE CAUSES
HORN RELAY
BODY CONTROL MODULE INTERNAL MALFUNCTION
OPEN HORN SWITCH
HORN/RADIO CONTROL MUX CIRCUIT OPEN
CLOCKSPRING
HORN/RADIO CONTROL MUX CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION
OPEN FUSE #8
JUNCTION BLOCK - OPEN FUSED B(+) CIRCUIT
JUNCTION BLOCK - OPEN HORN RELAY CONTROL CIRCUIT
BODY CONTROL MODULE INTERNAL MALFUNCTION
HORN RELAY
JUNCTION BLOCK - OPEN HORN RELAY OUTPUT CIRCUIT
OPEN HORN RELAY OUTPUT CIRCUIT
OPEN GROUND CIRCUIT
OPEN HORN

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, actuate the HORN RELAY. Does the Horn sound while actuating the Horn Relay. Yes → Go To 2 No → Go To 7	All
2	Press and hold the Horn button. With the DRBIII® in Inputs/Outputs, read the HORN SW state. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All

*HORN INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
3	**WARNING: Turn the Ignition Off, disconnect the Battery and wait 2 minutes before proceeding.** **CAUTION: Do not place an intact undeployed Airbag face down on a hard surface, the Airbag will propel into the air if accidently deployed.** Disconnect the Driver Airbag Module. Disconnect the Horn Switch connector. **WARNING: Turn the ignition on, then reconnect the battery.** Momentarily connect a jumper wire between the Horn/Radio Control MUX circuit and ground at the horn switch connector. Does the horn sound? Yes → Replace the Horn Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Clockspring C1 connector. Momentarily connect a jumper wire between the Horn/Radio Control MUX circuit at the Clockspring C1 and ground. Does the horn sound? Yes → Go To 5 No → Go To 6	All
5	Disconnect the Clockspring C3 harness connector. Measure the resistance of the Horn/Radio Control MUX circuit between the Horn Switch and Clockspring. Is the resistance below 5.0 ohms? Yes → Replace the Clockspring. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Horn/Radio Control MUX circuit for an open between the Clockspring and the Horn switch. Perform BODY VERIFICATION TEST - VER 1.	All
6	Disconnect the Body Control Module C1 harness connector. Disconnect the Clockspring C1 harness connector. Measure the resistance of the Horn/Radio Control MUX circuit between the BCM and the Clockspring. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Horn/Radio Control MUX circuit for an open between the Clockspring and the BCM. Perform BODY VERIFICATION TEST - VER 1.	All
7	With the DRBIII®, actuate the HORN RELAY. Examine the Horn Relay during the actuation. Does the Horn Relay click while actuating. Yes → Go To 8 No → Go To 12	All

*HORN INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
8	**NOTE: The following test will diagnose the Horn Relay Output circuit.** Remove the Horn Relay from the Junction Block. Temporarily remove the Headlamp Delay Relay from the Junction Block. Reinstall the Headlamp Delay Relay in place of the Horn Relay. With the DRBIII®, actuate the HORN RELAY. Does the Horn sound while actuating the Horn Relay? Yes → Replace the Horn Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Disconnect the jumper wire. Disconnect the Junction Block C2 connector. Connect a jumper wire between the Horn Relay Output circuit at the Junction Block C2 connector and B(+). Does the horn sound with the jumper wire connected? Yes → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1. No → Go To 10	All
10	Connect a jumper wire between the Horn Relay Output circuit at the Junction Block C2 connector and B(+). Disconnect the Horn connector. Measure the voltage of the Horn Relay Output circuit at the horn connector. Is the voltage above 10.0 volts? Yes → Go To 11 No → Repair the Horn Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
11	Disconnect the jumper wire. Disconnect the Horn connector. Measure the resistance of the Ground circuit at the horn connector. Is the resistance below 5.0 ohms? Yes → Replace the Horn. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
12	Remove and inspect fuse #8 in the Junction Block. Is the fuse open? Yes → Inspect/repair the Horn Relay Output circuit for a short to ground. Replace the fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 13	All

*HORN INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
13	Reinstall Fuse #8 in the Junction Block. Remove the Horn Relay from the Junction Block. Temporarily remove the Headlamp Delay Relay from the Junction Block. Reinstall the Headlamp Delay Relay in place of the Horn Relay. With the DRBIII®, actuate the HORN RELAY. Does the Horn sound while actuating the Horn Relay? Yes → Replace the Horn Relay. Perform BODY VERIFICATION TEST - VER 1. No → Go To 14	All
14	Remove the Headlamp Delay Relay from the Horn Relay location in the Junction Block. Reinstall the Headlamp Delay Relay to its original location. Measure the voltage of the Fused B(+) circuits at the Horn Relay connector. Is the voltage above 10.0 volts at each cavity? Yes → Go To 15 No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All
15	Remove the Horn Relay from the junction block. Remove the BCM from the junction block. Connect a jumper wire between the Fused B(+) circuit and the Horn Relay Control circuit at the Horn Relay connector. Measure the voltage of the Horn Relay Control circuit (cavity 7) in the BCM internal connector. Is the voltage above 10.0 volts? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

ABS LAMP CIRCUIT OPEN
ABS LAMP CIRCUIT SHORT
AIRBAG LAMP CIRCUIT OPEN
AIRBAG LAMP CIRCUIT SHORT

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be ABS LAMP CIRCUIT OPEN.

When Monitored and Set Condition:

ABS LAMP CIRCUIT OPEN

When Monitored: The Instrument Cluster performs an internal diagnostic of the indicator circuit at power up and when the bulb is requested.

Set Condition: When the Instrument Cluster detects a fault in the ABS bulb circuit.

ABS LAMP CIRCUIT SHORT

When Monitored: The Instrument Cluster performs an internal diagnostic at power up and when the bulb is requested.

Set Condition: When the Instrument Clusteris detects a fault in the ABS bulb circuit.

AIRBAG LAMP CIRCUIT OPEN

When Monitored: The Instrument Cluster performs an internal diagnostic of the circuit at power up and when the bulb is requested.

Set Condition: When the Instrument Cluster is detects a fault in the Airbag bulb circuit.

AIRBAG LAMP CIRCUIT SHORT

When Monitored: The Instrument Cluster performs an internal diagnostic at power up and when the bulb is requested.

Set Condition: When the Instrument Cluster detects a fault in the Airbag bulb circuit.

POSSIBLE CAUSES
INDICATOR BULB
INSTRUMENT CLUSTER

ABS LAMP CIRCUIT OPEN — Continued

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** Turn the ignition on. With the DRBIII®, record and erase DTC's. Turn the ignition off, wait 15 seconds, then turn the ignition on. With the DRBIII®, read DTCs. Did the Indicator Lamp Open or Short DTC reset? Yes → Go To 2 No → Test Complete.	All
2	Turn the ignition off. Remove and inspect the Indicator Bulb in question. Is the Indicator Bulb in question defective? Yes → Replace the Indicator Bulb in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

FUEL LEVEL SENDING UNIT FAILURE

When Monitored and Set Condition:

FUEL LEVEL SENDING UNIT FAILURE

When Monitored: With the ignition on.

Set Condition: The BCM detects an out of range, open or short circuit on the Fuel Level Sensor Signal circuit.

POSSIBLE CAUSES
FUEL LEVEL SENSOR SIGNAL CIRCUIT SHORTED TO VOLTAGE
FUEL LEVEL SENSOR SIGNAL CIRCUIT OPEN
FUEL LEVEL SENSOR GROUND CIRCUIT OPEN
FUEL LEVEL SENSOR SIGNAL CIRCUIT SHORT TO SENSOR GROUND CIRCUIT
FUEL LEVEL SENSOR SIGNAL CIRCUIT SHORT TO GROUND
FUEL LEVEL SENSOR
INTERMITTENT CONDITION
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, erase DTCs. Cycle the ignition. Wait approximately 1 minute. With the DRBIII® in Body Computer, read DTCs. Does the DTC reset? Yes → Go To 2 No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All

FUEL LEVEL SENDING UNIT FAILURE — Continued

TEST	ACTION	APPLICABILITY
2	Turn the ignition off. Disconnect the Fuel Tank Module harness connector. Turn the ignition on. **NOTE: The BCM sends out a low current 12 volt signal on the Fuel Level Sensor Signal circuit. This low current should not illuminate a 12 volt test light.** Using a 12-volt test light connected to ground, probe the Fuel Level Sensor Signal circuit in the Fuel Tank Module harness connector. Does the test light illuminate? Yes → Repair the Fuel Level Sensor Signal circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Fuel Tank Module harness connector. Measure the resistance of the Fuel Level Sensor Ground circuit in the Fuel Tank Module harness connector. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the Fuel Level Sensor Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the ignition off. Disconnect the BCM harness connector. Disconnect the Fuel Tank Module harness connector. Measure the resistance between the Fuel Level Sensor Signal circuit and the Sensor Ground circuit in the BCM connector. Is the resistance below 5.0 ohms? Yes → Repair the Fuel Level Sensor Signal circuit for a short to the Sensor Ground circuit. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the BCM harness connector. Disconnect the Fuel Tank Module harness connector. Measure the resistance between ground and the Fuel Level Sensor Signal circuit. Is the resistance below 5.0 ohms? Yes → Repair the Fuel Level Sensor Signal circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Fuel Tank Module harness connector. Disconnect the BCM harness connector. Measure the resistance of the Fuel Level Sensor Signal circuit between the Fuel Tank Module harness connector and the BCM harness connector. Is the resistance below 5.0 ohms? Yes → Go To 7 No → Repair the Fuel Level Sensor Signal circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

FUEL LEVEL SENDING UNIT FAILURE — Continued

TEST	ACTION	APPLICABILITY
7	Turn the ignition off. Disconnect the Fuel Tank Module harness connector. Measure the resistance of the Fuel Level Sensor. The Fuel Level Sensor resistance must be within the following values: Full = Approximately 130 Ohms 3/4 = Approximately 340 Ohms 1/2 = Approximately 550 Ohms 1/4 = Approximately 760 Ohms Empty = Approximately 940 Ohms Does the Fuel Level Sensor resistance measure within specifications? Yes → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Fuel Level Sensor in accordance with the Service Information.. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom List:

NO ABS BUS MESSAGES RECEIVED
NO BCM BUS MESSAGES RECEIVED
NO ORC BUS MESSAGES RECEIVED
NO TCM BUS MESSAGES RECEIVED

Test Note: All symptoms listed above are diagnosed using the same tests. The title for the tests will be NO ABS BUS MESSAGES RECEIVED.

When Monitored and Set Condition:

NO ABS BUS MESSAGES RECEIVED

When Monitored: With the ignition on.

Set Condition: The Instrument Cluster detects loss of PCI Bus communication with the ABS module for 10 seconds. The cluster will illuminate the BRAKE and ABS warning lamp indicators.

NO BCM BUS MESSAGES RECEIVED

When Monitored: With the ignition on.

Set Condition: The Instrument Cluster detects no PCI Bus communiaction with the BCM for 5 seconds. The cluster will position the Fuel Gauge needle to ″E″, illuminate the Low Fuel indicator, and illuminate the VF display at full brightness.

NO ORC BUS MESSAGES RECEIVED

When Monitored: With the ignition on.

Set Condition: The Instrument Cluster detects no PCI Bus communication with the ORC for 5 seconds. The cluster will illuminate the Airbag indicator.

NO TCM BUS MESSAGES RECEIVED

When Monitored: With the ignition on.

Set Condition: The Instrument Cluster detects no PCI Bus communication with the TCM for 10 seconds. The cluster will illuminate all gears in the VF display.

POSSIBLE CAUSES
NO COMMUNICATION WITH THE ABS, BCM, ORC, OR TCM MODULE

NO ABS BUS MESSAGES RECEIVED — Continued

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRB, attempt to communicate with the ABS, BCM, ORC, or TCM module. Was the DRB able to I/D or communicate with the module in question? Yes → Test Complete. No → Refer to the Communication category for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
PANEL DIMMING OUTPUT SHORT

POSSIBLE CAUSES
INTERMITTENT CONDITION
PANEL LAMPS DRIVER CIRCUIT SHORT TO GROUND
COMPONENT SHORTED
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, record and erase Body Control Module DTC's. Turn the ignition off, wait 15 seconds, then turn the ignition on. Turn on the Headlamps. With the DRBIII®, read DTCs. Does the DRBIII® display PANEL DIMMING OUTPUT SHORT? Yes → Go To 2 No → Test Complete.	All
2	Turn the ignition on. With the DRBIII®, erase Body Control Module DTCs. Turn the ignition off. Using the Wiring Diagrams as a guide, disconnect each dimmed component , one at a time while checking for the DTC to reset. Turn the ignition on. Turn the Headlamps on. With the DRBIII®, read DTCs. Does the DRBIII® display PANEL DIMMING OUTPUT SHORT? Yes → Go To 3 No → Replace the shorted component as necessary. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Using the Wiring Diagrams as a guide, disconnect each dimmed component and test the dimming circuit for a short to ground condition. Were there any problems found? Yes → Repair the Panel Lamps Driver circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
PCM MESSAGE NOT RECEIVED

When Monitored and Set Condition:

PCM MESSAGE NOT RECEIVED

When Monitored: With the ignition on.

Set Condition: When the Instrument Cluster detects no PCI Bus communication with the PCM for 20 seconds. The cluster will illuminate the CHECK ENGINE indicator and the VF will display NO BUS. The Tachometer, Speedometer, and Temperature gauge pointers will be driven against their pointer stops. The Engine Temp, Charging System, and Cruise indicators will latch to their last known state.

POSSIBLE CAUSES
PCM MESSAGE NOT RECEIVED
NO COMMUNICATION WITH THE PCM
PCI BUS CIRCUIT OPEN
POWERTRAIN CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, enter Instrument Cluster, System Tests then PCM Monitor. Does the DRBIII® display: PCM is active on the BUS? Yes → Erase the DTC, if DTC resets, replace the Instrument Cluster in accordance with the Service Information.. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition on. With the DRBIII®, attempt to communicate with the PCM. Was the DRBIII® able to communicate with the PCM? Yes → Go To 3 No → Refer to the Communication category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1.	All

PCM MESSAGE NOT RECEIVED — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the PCM C2 harness connector. Connect the diagnostic junction port tester #8339 to the diagnostic junction port. **NOTE: Do not connect the tester to the DRBIII®.** Measure the resistance of the PCI Bus circuit between the diagnostic junction port tester and the PCM C2 connector. Is the resistance below 5.0 ohms? Yes → Replace and program the Powertrain Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the PCI Bus circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*BRAKE WARNING INDICATOR ALWAYS ON

POSSIBLE CAUSES
BRAKE FLUID LEVEL SWITCH
PARK BRAKE SWITCH
RED BRAKE WARNING INDICATOR DRIVER CIRCUIT SHORT TO GROUND
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: If vehicle is equipped with ABS, diagnose and repair any ABS Lamp or Communication DTCs before proceeding with this test.** **NOTE: If vehicle is NOT equipped with ABS, ensure that the Instrument Cluster is not configured for ABS.** **NOTE: Ensure that the Brake Fluid is correctly filled and that the Base Brakes are operating properly before proceeding with this test.** Turn the ignition off. Disconnect the Brake Fluid Level Switch harness connector. Turn the ignition on. Observe the Brake Warning Indicator. Is the Brake Warning Indicator illuminated? Yes → Go To 2 No → Replace the Brake Fluid Level Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Park Brake Switch harness connector. Turn the ignition on. Observe the Brake Warning Indicator. Is the Brake Warning Indicator illuminated? Yes → Go To 3 No → Replace the Park Brake Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Brake Fluid Level Switch harness connector. Disconnect the Park Brake Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance between ground and the Red Brake Warning Indicator circuit. Is the resistance below 5.0 ohms? Yes → Repair the Red Brake Warning Indicator Driver circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*BRAKE WARNING INDICATOR INOPERATIVE

POSSIBLE CAUSES
INDICATOR BULB
PARK BRAKE SWITCH
PARK BRAKE SWITCH RED BRAKE WARNING INDICATOR DRIVER CIRCUIT OPEN
BRAKE FLUID LEVEL SWITCH
BRAKE FLUID LEVEL SWITCH GROUND CIRCUIT OPEN
BRAKE FLUID LEVEL SWITCH RED BRAKE WARNING INDICATOR DRIVER CIRCUIT OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Release the Trip Reset button when the Self Test begins. Observe the Brake Warning Indicator during the Self Test. Did the Brake Warning Indicator illuminate for approximately 4 seconds and turn off? Yes → Go To 2 No → Remove and inspect the Brake Warning Indicator bulb and socket, if found to be defective, replace as necessary. If the bulb and socket check OK, replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Is the fault condition related to the Park Brake? Yes → Go To 3 No → Go To 5	All
3	Turn the ignition off. Disconnect the Park Brake Switch harness connector. Connect a jumper wire between the Red Brake Warning Indicator circuit and ground. Turn the ignition on. Observe the Brake Warning Indicator. Did the Brake Warning Indicator illuminate? Yes → Replace the Park Brake Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*BRAKE WARNING INDICATOR INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Park Brake Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance of the Red Brake Warning Indicator circuit between the Park Brake Switch connector and the Instrument Cluster connector. Is the resistance above 5.0 ohms? Yes → Repair the Red Brake Warning Indicator Driver circuit between the Park Brake Switch and the Instrument Cluster for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Brake Fluid Level Switch harness connector. Connect a jumper wire between cavity 1 and cavity 2. Turn the ignition on. Observe the Brake Warning Indicator. Did the Brake Warning Indicator illuminate? Yes → Replace the Brake Fluid Level Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Brake Fluid Level Switch harness connector. Measure the resistance between ground and the Brake Fluid Level Switch Ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 7 No → Repair the Brake Fluid Level Switch Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Brake Fluid Level Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance of the Red Brake Warning Indicator Driver circuit between the Brake Fluid Level Switch connector and the Instrument Cluster connector. Is the resistance below 5.0 ohms? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Red Brake Warning Indicator Driver circuit between the Brake Fluid Level Switch and the Instrument Cluster for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*CHARGING SYSTEM WARNING INDICATOR NOT OPERATING PROPERLY

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
INDICATOR BULB
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** **NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Release the Trip Reset button when the Self Check begins. Observe the Charging System Warning Indicator during the Self Test. Did the Charging System Warning Indicator illuminate for approximately 4 seconds and then turn off? Yes → Go To 2 No → Go To 3	All
2	Using the DRBIII®, read DTC's. Are there any DTC's present? Yes → Refer to symptom list for problems related to the DTC. Perform BODY VERIFICATION TEST - VER 1. No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All
3	Remove and inspect the Charging System Warning Indicator bulb and socket. Is the indicator bulb or socket defective? Yes → Replace the Indicator bulb or socket as necessary in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*CRUISE ENGAGED INDICATOR INOPERATIVE

POSSIBLE CAUSES
NO CRUISE OPERATION
INDICATOR BULB
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** **NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Release the Trip Reset button when the Self Test begins. Observe the Cruise Indicator during the Self Test. Did the Cruise indicator illuminate for approximately 4 seconds and then turn off? Yes → Go To 2 No → Go To 3	All
2	Start the engine. Drive the vehicle. Activate the Cruise system. Does the Cruise system operate properly? Yes → Test Complete. No → Refer to Cruise diagnostics for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1.	All
3	Remove and inspect the Cruise Engaged Indicator Lamp bulb and socket. Is the bulb or socket defective? Yes → Replace the Cruise Indicator bulb or socket as necessary in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ENGINE COOLANT TEMPERATURE GAUGE INOPERATIVE OR INACCURATE**

POSSIBLE CAUSES
DTC PRESENT
ENGINE COOLANT TEMPERATURE BUS MESSAGE
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Using the DRBIII® read EMIC, PCM, and BCM DTC's. Are there any DTC's present? Yes → Refer to DRIVEABILITY information for the related symptom(s). Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Observe the Engine Coolant Temperature gauge during the Self Test. The gauge will position the indicator needle at the following calibration points: C, H, 1/2, C Did the Engine Coolant Temperature Gauge position the needle correctly? Yes → Go To 3 No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition on. With the DRBIII®, read the Engine Coolant Temperature in the PCM, EMIC and the BCM. Does either the EMIC or BCM display a different Engine Coolant Temperature than the PCM? Yes → Refer to symptom list for problems related to inaccurate Engine Coolant Temperature reading and communications. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*ENGINE COOLANT TEMPERATURE INDICATOR NOT OPERATING PROPERLY

POSSIBLE CAUSES
DTC PRESENT
ENGINE COOLANT TEMPERATURE WARNING INDICATOR LED
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. **NOTE: The Instrument Cluster will illuminate the Engine Coolant Temperature indicator at 124°C (255°F). The indicator will turn off at 121°C (250°F).** Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Release the Trip Reset button when the Self Test begins. Observe the Engine Coolant Temperature Warning indicator during the Self Test. Did the Engine Coolant Temperature indicator illuminate for approximately 4 seconds and then turn of Yes → Go To 2 No → Go To 3	All
2	Turn the ignition on. Using the DRBIII® read DTC's. Are there any DTC's present? Yes → Refer to symptom list for problems related to DRIVEABILITY. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Remove the Engine Coolant Temperature Warning Indicator LED. Using a DVOM, select ″Diode Mode″ and connect the leads across the LED. **CAUTION: Ensure that the RED lead is on the ″+″ of the LED.** Did the Engine Coolant Temperature Warning Indicator LED illuminate? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Engine Coolant Temperature Warning Indicator LED in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*FUEL GAUGE NOT OPERATING PROPERLY

POSSIBLE CAUSES
INTERMITTENT CONDITION
FUEL LEVEL SENSOR
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. Observe the Fuel Gauge during the Self Test. The Fuel Gauge should position the indicator needle at the following calibration points: E, F, 1/2, E Did the Fuel Gauge position the needle correctly? Yes → Go To 2 No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Fuel Pump Module harness connector. Measure the resistance of the Fuel Level Sensor. The Fuel Level Sensor resistance must be within the following values: Full = Approximately 130 Ohms 3/4 = Approximately 340 Ohms 1/2 = Approximately 550 Ohms 1/4 = Approximately 760 Ohms Empty = Approximately 940 Ohms Does the Fuel Level Sensor resistance measure within specifications? Yes → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Fuel Level Sensor in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*HIGH BEAM INDICATOR ALWAYS ON

POSSIBLE CAUSES
DIMMER SWITCH HIGH BEAM OUTPUT CIRCUIT SHORT TO VOLTAGE
JUNCTION BLOCK SHORT TO VOLTAGE
MULTI- FUNCTION SWITCH
BODY CONTROL MODULE
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII® in Body Control Inputs/Outputs, read the Hi Beams state. Does the DRBIII® Inputs/Outputs, display On? Yes → Go To 2 No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Multi- Function Switch harness connector. Turn the ignition on. With the DRBIII® in Body Control Inputs/Outputs, read the Hi Beams state. Does the DRBIII® display On? Yes → Go To 3 No → Replace the Multi- Function Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Multi- Function Switch harness connector. Disconnect the Junction Block C6 harness connector. Turn the ignition on. Measure the voltage between the Dimmer Switch High Beam Output circuit and ground. Is there any voltage present? Yes → Repair the Dimmer Switch High Beam Output circuit between the Multi- Function Switch and the Junction Block for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*HIGH BEAM INDICATOR ALWAYS ON — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Junction Block C6 harness connector. Turn the ignition on. Measure the voltage between the #3 Fuse in the Junction Block and ground. Is there any voltage present? Yes → Replace the Junction Block in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*HIGH BEAM INDICATOR INOPERATIVE

POSSIBLE CAUSES
INDICATOR BULB
DIMMER SWITCH HIGH BEAM OUTPUT CIRCUIT OPEN
BODY CONTROL MODULE
JUNCTION BLOCK
MULTI- FUNCTION SWITCH OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** **NOTE: Ensure that the Exterior High Beam Headlamps operate properly before proceeding with this test.** Turn the ignition on. With the DRBIII® in MIC Actuators, actuate the Hi Beam Lamp. Did the High Beam Indicator illuminate? Yes → Go To 2 No → Go To 6	All
2	Turn the ignition on. With the DRBIII® in Body Control Inputs/Outputs, read the Hi Beams state while actuating the High Beam Headlamps. Does the DRBIII® Inputs/Outputs display On? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Junction Block C6 harness connector. Actuate the High Beam Headlamps. Measure the voltage between the Dimmer Switch High Beam Output circuit and ground at the Junction Block C6 harness connector. Is the voltage above 10.5 volts? Yes → Go To 4 No → Go To 5	All

*HIGH BEAM INDICATOR INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect and isolate the Negative Battery cable. Disconnect the Junction Block C6 harness connector. Disconnect the BCM from the Junction Block. Using the Wiring Diagrams as a guide, measure the resistance of the Dimmer Switch High Beam Output circuit through the Junction Block. Is the resistance above 10 ohms? Yes → Replace the Junction Block in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Junction Block C6 harness connector. Disconnect the Multi- Function Switch harness connector. Measure the resistance of the Dimmer Switch High Beam Output circuit. Is the resistance above 5.0 ohms? Yes → Repair the Dimmer Switch High Beam Output circuit between the Multi- Function Switch and the Junction Block for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Multi- Function Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. Remove and inspect the High Beam Indicator bulb and socket. Is the bulb or socket defective? Yes → Replace the High Beam Indicator Bulb or socket in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*LOW FUEL WARNING INDICATOR NOT OPERATING PROPERLY

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
INDICATOR LED
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** **NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. During the Self Test all of the Indicators should illuminate for approximately 4 seconds. Observe the Low Fuel Warning Indicator during the Self Test. Did the Low Fuel Warning Indicator illuminate for approximately 4 seconds then turn off? Yes → Go To 2 No → Go To 3	All
2	Using the DRBIII® read DTC's. Is the DTC FUEL LEVEL SENDING UNIT INOP present? Yes → Refer to symptom list for diagnosis of the DTC. Perform BODY VERIFICATION TEST - VER 1. No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Remove and test the Low Fuel Warning Indicator LED. Using a DVOM, select ″Diode Mode″ and connect the leads across the LED. **NOTE: Ensure that the RED lead is on the ″+″ of the LED.** Did the Low Fuel Warning Indicator LED illuminate? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Low Fuel Warning Indicator LED in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*MALFUNCTION INDICATOR LAMP NOT OPERATING PROPERLY

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
INDICATOR BULB OR SOCKET
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that there is communication between the PCM, BCM, and the Instrument Cluster before proceeding with this test.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. During the self test all Indicators should illuminate for approximately 4 seconds. Observe the Malfunction Indicator Lamp during the Self Test. Did the Malfunction Indicator Lamp Indicator illuminate for approximately 4 seconds then turn off? Yes → Go To 2 No → Go To 3	All
2	Using the DRBIII® read DTC's. Are there any DTC's present? Yes → Refer to symptom list for problems related to the DTC. Perform BODY VERIFICATION TEST - VER 1. No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All
3	Remove and inspect the Malfunction Indicator Lamp bulb and socket. Is there a problem with the bulb or socket? Yes → Replace the Indicator bulb or socket as necessary in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*OIL PRESSURE INDICATOR NOT OPERATING PROPERLY

POSSIBLE CAUSES
INTERMITTENT CONDITION
OIL PRESSURE INDICATOR CIRCUIT SHORT TO GROUND
OIL PRESSURE SWITCH ALWAYS CLOSED
OIL PRESSURE SWITCH ALWAYS OPEN
OIL PRESSURE WARNING LAMP INDICATOR BULB OR SOCKET
OIL PRESSURE INDICATOR CIRCUIT SHORT TO VOLTAGE
FUSED IGNITION SWITCH OUTPUT CIRCUIT OPEN
OIL PRESSURE INDICATOR CIRCUIT OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the engine has normal operating oil pressure before proceeding with test. Refer to the Service Manual for specifications.** Without starting the engine, turn the ignition on. Does the Oil Pressure Indicator illuminate? Yes → Go To 2 No → Go To 4	All
2	Start the engine. Does the Oil Pressure Indicator turn off? Yes → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Disconnect the Oil Pressure Switch harness connector. Measure the resistance between ground and the Oil Pressure Switch circuit. Is the resistance below 5.0 ohms? Yes → Repair the Oil Pressure Indicator circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Oil Pressure Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*OIL PRESSURE INDICATOR NOT OPERATING PROPERLY — Continued

TEST	ACTION	APPLICABILITY
4	Remove and inspect the Oil Pressure Warning Indicator Lamp bulb and socket. Is there a problem with the bulb or socket? Yes → Replace the Indicator bulb or socket as necessary in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Disconnect the Oil Pressure Switch harness connector. Turn the ignition on. Measure the voltage between the Oil Pressure Indicator circuit and ground. Is there any voltage present? Yes → Repair the Oil Pressure Indicator circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, check the Fused Ignition Switch Output circuit. Does the test light illuminate brightly? Yes → Go To 7 No → Repair the Fused Ignition Switch Output circuit for an open or high resistance circuit. If the fuse is open make sure to check for a short to ground and repair as necessary. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Disconnect the Oil Pressure Switch harness connector. Turn the ignition on. Using a 12-volt test light connected to ground, check the Oil Pressure Indicator circuit. Does the test light illuminate brightly? Yes → Go To 8 No → Repair the Oil Pressure Indicator circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	Turn the ignition off. Disconnect the Oil Pressure Switch harness connector. Measure the resistance between the Oil Pressure Switch terminal pin and ground. **NOTE: With the engine not running the Oil Pressure Switch should be closed to ground.** Does the Oil Pressure Switch terminal pin have continuity to ground? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Oil Pressure Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*PRND OR AUTOSTICK INDICATOR INACCURATE OR INOPERATIVE

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the correct Instrument Cluster is installed and is correctly configured for the vehicle.** **NOTE: Ensure that there is communication between the MIC, PCM, and the TCM before proceeding with this test.** **NOTE: Diagnose and repair any DTCs before proceeding with this test.** **NOTE: Ensure that the TCM passes the Shift Lever Test with the DRBIII® before proceeding with this test.** Turn the ignition on. With the DRBIII®, read DTCs. Does the DRBIII® display any MIC, PCM, or TCM DTCs? Yes → Refer to symptom list for problems related to DTC's. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition on. Observe the PRND / AutoStick VF display during the Self Test. Did any part of the VF display fail to illuminate? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*SEAT BELT INDICATOR ALWAYS ON

POSSIBLE CAUSES
SEAT BELT SWITCH
SEAT BELT SWITCH GROUND CIRCUIT OPEN
SEAT BELT SWITCH SENSE CIRCUIT OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Disconnect the Seat Belt Switch harness connector. Connect a jumper wire between cavity 1 and cavity 2. **NOTE: For vehicles equipped with Seat Belt Pre- Tensioner, use the Wiring Diagrams as a guide to ensure proper terminal selection.** Turn the ignition on. Observe the Seat Belt Indicator. Did the Seat Belt Indicator illuminate for approximately 4 seconds and turn off? Yes → Replace the Seat Belt Buckle in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Disconnect the Seat Belt Switch harness connector. Measure the resistance between ground and the Seat Belt Switch Ground circuit. Is the resistance above 5.0 ohms? Yes → Repair the Seat Belt Switch Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Seat Belt Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance of the Seat Belt Switch Sense circuit between the Seat Belt Switch connector and the Instrument Cluster connector. Is the resistance above 5.0 ohms? Yes → Repair the Seat Belt Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*SEAT BELT INDICATOR INOPERATIVE

POSSIBLE CAUSES
SEAT BELT SWITCH
SEAT BELT SWITCH SENSE CIRCUIT SHORT TO GROUND
SEAT BELT INDICATOR LED
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure that the Junction Block Fuse #11 is not open. If the fuse is open make sure to check for a short to ground.** **NOTE: Ensure that the Instrument Cluster is configured with the correct code.** Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. Observe the Seat Belt Indicator during the Self Test. Did the Seat Belt indicator illuminate for approximately 4 seconds then turn off? Yes → Go To 2 No → Go To 4	All
2	Turn the ignition off. Disconnect the Seat Belt Switch harness connector. **NOTE: Performing this test on vehicles equipped with Pre- Tensioners will set a DTC in the ACM. Clear codes after repairs are complete.** Turn the ignition on. Observe the Seat Belt Indicator Did the Seat Belt indicator illuminate? Yes → Replace the Seat Belt Buckle in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Instrument Cluster harness connector. Disconnect the Seat Belt Switch harness connector. Measure the resistance between ground and the Seat Belt Switch Sense circuit. Is the resistance below 5.0 ohms? Yes → Repair the Seat Belt Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

*SEAT BELT INDICATOR INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Remove and test the Seat Belt Indicator LED. Using a DVOM, select ″Diode Mode″ and connect the leads across the LED. **NOTE: Ensure that the RED lead is on the ″+″ of the LED.** Did the Seat Belt Indicator illuminate? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Seat Belt Indicator LED in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***SPEEDOMETER NOT OPERATING PROPERLY**

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
MISSING OR INCORRECT PINION FACTOR
VEHICLE SPEED MESSAGE
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Using the DRBIII® read EMIC, PCM, ABS and BCM DTC's. Are there any DTC's present? Yes → Refer to the symptom list for problems related to the DTC. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. Observe the Speedometer during the Self Test. The Speedometer should position the indicator needle at the following calibration points: 0, 100, 75, 55, 20, 0 (MPH) Did the Speedometer needle position correctly? Yes → Go To 3 No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
3	With the DRBIII®, verify that the pinion factor is correctly programmed. Is the pinion factor programmed correctly? Yes → Go To 4 No → Using the Diagnostic (Transmission, or Chassis)/Service Manual Information as a guide, program the correct Pinion Factor. Perform BODY VERIFICATION TEST - VER 1.	All

*SPEEDOMETER NOT OPERATING PROPERLY — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition on. Drive the vehicle With the DRBIII® in Monitors, read the Vehicle Speed in the EMIC, BCM and the PCM. Does the EMIC or BCM Monitor display a different Vehicle Speed than the PCM Wheel Speed? Yes → Refer to symptom list for problems related to inaccurate Vehicle Speed and communications. Perform BODY VERIFICATION TEST - VER 1. No → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*TACHOMETER NOT OPERATING PROPERLY

POSSIBLE CAUSES
DTC PRESENT
INTERMITTENT CONDITION
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	Using the DRBIII® read EMIC, PCM and BCM DTC's. Are there any DTC's present? Yes → Refer to symptom list for problems related to the DTC. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Perform the Instrument Cluster Self Test. Turn the ignition off. Press and hold the Trip/Reset button. Turn the ignition to the Unlock position. Observe the Tachometer during the Self Test. The Tachometer should position the indicator needle at the following calibration points: 0, 6000, 3000, 1000, 0 Did the Tachometer needle position correctly? Yes → The condition is not present at this time. Monitor DRBIII® parameters while wiggling the related wire harness. Refer to any Technical Service Bulletins (TSB) that may apply. Visually inspect the related wiring harness and connector terminals. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*TRACTION CONTROL INDICATOR ALWAYS ON

POSSIBLE CAUSES
TRACTION CONTROL SWITCH
TRACTION CONTROL SWITCH SENSE CIRCUIT SHORT TO GROUND
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: With the DRBIII®, check for any DTCs in the CAB before proceeding. Make necessary repairs.** Turn the ignition off. Disconnect the Traction Control Switch harness connector. Turn the ignition on. **NOTE: Wait approximately 10 seconds for the instrument cluster bulb check sequence to finish.** Observe the Traction Control Indicator. Is the Traction Control Indicator illuminated? Yes → Go To 2 No → Replace the Traction Control Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Traction Control Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance between ground and the Traction Control Switch Sense circuit. Is the resistance below 5.0 ohms? Yes → Repair the Traction Control Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*TRACTION CONTROL INDICATOR INOPERATIVE

POSSIBLE CAUSES
TRACTION CONTROL INDICATOR BULB
TRACTION CONTROL SWITCH
TRACTION CONTROL SWITCH GROUND CIRCUIT OPEN
TRACTION CONTROL SWITCH SENSE CIRCUIT OPEN
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: NOTE: With the DRBIII®, check for any DTCs in the CAB before proceeding. Make necessary repairs.** Turn the ignition off. Press and hold the Trip Reset button. Turn the ignition to the Unlock position. Release the Trip Reset button when the Self Test begins. Observe the Traction Control Indicator during the Self Test. Did the Traction Control Indicator illuminate during the Self Test? Yes → Go To 2 No → Remove and inspect the Traction Control Indicator bulb and socket, repair or replace as necessary. If the bulb and socket check OK, replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Traction Control Switch harness connector. Connect a jumper wire between the Traction Control Switch Sense circuit and the Traction Control Switch ground circuit. Did the Traction Control Indicator Illuminate? Yes → Replace the Traction Control Switch in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Traction Control Switch harness connector. Measure the resistance between ground and the Traction Control Switch ground circuit. Is the resistance above 5.0 ohms? Yes → Repair the Traction Control Switch ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*TRACTION CONTROL INDICATOR INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Traction Control Switch harness connector. Disconnect the Instrument Cluster harness connector. Measure the resistance of the Traction Control Switch Sense circuit between the Traction Control Switch connector and the Instrument Cluster connector. Is the resistance below 5.0 ohms? Yes → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Traction Control Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*VTSS INDICATOR INOPERATIVE

POSSIBLE CAUSES
BCM OR SKIM DTC PRESENT
VTSS INDICATOR DRIVER CIRCUIT OPEN
BODY CONTROL MODULE
INSTRUMENT CLUSTER

TEST	ACTION	APPLICABILITY
1	**NOTE: Verify the vehicle is equipped with VTSS/SKIM.** **NOTE: Ensure that the VTSS is enabled before proceeding with this test.** **NOTE: Observe the VTSS indicator during the Bulb Check. If the indicator does not illuminate, replace the Instrument Cluster.** Turn the ignition on. With the DRBIII®, read Body Control Module / SKIM DTCs. Does the DRBIII® display any DTCs? Yes → Refer to the VEHICLE THEFT / SECURITY category and perform the appropriate symptom. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Disconnect the BCM C1 harness connector. Measure the voltage between the VTSS Indicator Driver circuit and ground. Is the voltage above 10.5 volts? Yes → Replace and program the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Instrument Cluster Harness connector. Disconnect the BCM C1 harness connector. Measure the resistance of the VTSS Indicator Driver circuit. Is the resistance above 5.0 ohms? Yes → Repair the VTSS Indicator Driver circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Instrument Cluster in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
COURTESY LAMP OUTPUT FAILURE

When Monitored and Set Condition:

COURTESY LAMP OUTPUT FAILURE

When Monitored: Any time the courtesy lamps should be on - door ajar, illuminated entry, or dimmer switch placed in dome lamp position.

Set Condition: BCM detects an over - voltage condition on its courtesy lamp output.

POSSIBLE CAUSES
INTERMITTENT CONDITION
SHORT TO BATTERY
SHORT TO GROUND
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Courtesy Lamps. With the DRBIII®, read the DTC information. Does the DRBIII® read: Courtesy Lamp Output Failure? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Junction Block harness connector. Turn on all overhead, map and rear rearing lamps by their own individual switches. This will disconnect each lamp from the Courtesy Lamp Driver Circuit. Did any lamp fail to light when it was turned on by it's own switch? Yes → Repair the short to Battery condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Junction Block Harness Connector from the front of the junction block. Remove the Body Control Module from the junction block. Measure the voltage of the Courtesy Lamps Driver circuit. Is there any voltage on the Courtesy Lamps Driver Circuit? Yes → Repair the short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
DIMMING LEVEL SWITCH INPUT FAILURE

When Monitored and Set Condition:

DIMMING LEVEL SWITCH INPUT FAILURE

When Monitored: Continuously.

Set Condition: BCM detects an open or short circuit condition for 10 consecutive seconds on the dimming level switch input.

POSSIBLE CAUSES
INTERMITTENT CONDITION
OPEN CIRCUIT
SHORT TO GROUND
SHORT TO BATTERY
FAILED DIMMER SWITCH
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Dimming Level Switch. With the DRBIII®, read the DTC information. Does the DRBIII® read: Dimming Level Switch Input Failure? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Junction Block C11 Harness Connector from the front of the junction block. Cycle the ignition switch off than back on. Did the remaining courtesy lamps, door lamps come on? Yes → Go To 3 No → Repair the open circuit condition. Perform BODY VERIFICATION TEST - VER 1.	All

DIMMING LEVEL SWITCH INPUT FAILURE — Continued

TEST	ACTION	APPLICABILITY
3	Ensure the Junction Block Harness connector on the front of the junction block is connected before proceeding. Turn on all overhead, map and rear rearing lamps by their own individual switches. This will disconnect each lamp from the Courtesy Lamp Driver Circuit. Did any lamp fail to light when it was turned on by it's own switch? Yes → Repair the short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Ensure the Junction Block Harness connector on the front of the junction block is connected before proceeding. Turn on all overhead, map and rear rearing lamps by their own individual switches. This will disconnect each lamp from the Courtesy Lamp Driver Circuit. Did any lamp fail to light when it was turned on by it's own switch? Yes → Repair the short to battery condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the Junction Block Harness Connector from the front of the junction block. Remove the Body Control Module from the junction block. Measure the voltage of the Courtesy Lamps Driver circuit. Is there any voltage on the Courtesy Lamps Driver Circuit? Yes → Replace the Dimmer Switch. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*COURTESY LAMP INOPERATIVE - ALL LAMPS

POSSIBLE CAUSES
JUNCTION BLOCK
OPEN FUSE
COURTESY LAMPS DRIVER CIRCUIT OPEN
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Gain access to the junction block C10 Harness connector but do not disconnect. While back probing, measure the voltage of the Fused B+ circuit. Is the voltage above 10.0 volts? Yes → Go To 2 No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All
2	Check Junction Block Fuse 5. Is Fuse 5 open? Yes → Replace the open fuse. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Back probe a jumper wire from the Courtesy Lamps Driver circuit to the Junction Block C10 connector and ground. Do the courtesy lamps come on? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the open Courtesy Lamp Driver circuit. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*I/P ILLUMINATION LAMPS NOT WORKING PROPERLY

POSSIBLE CAUSES
DEFECTIVE BULB OR SOCKET
PANEL DIMMING CIRCUIT OPEN
PANEL DIMMING GROUND CIRCUIT OPEN
BODY CONTROL MODULE
ILLUMINATED COMPONENT

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. Turn on the Headlamps. Turn the Dimmer Switch to the maximum brightness setting. Observe all I/P illumination. What was observed? No I/P illumination. Go To 7 Some I/P illumination. Go To 2	All
2	Remove and inspect the I/P illumination bulbs and sockets of the affected component. Is there a problem with any bulb or socket? Yes → Replace the defective bulb or socket as needed in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off to the lock position. Disconnect the Body Control Module harness connector. Disconnect the affected component harness connector. **Note: Check connectors - Clean/repair as necessary.** Measure the resistance of the Panel Dimming circuit between the Body Control Module connector and the affected component harness connector. Is the resistance above 5.0 ohms? Yes → Repair the Panel Dimming circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*I/P ILLUMINATION LAMPS NOT WORKING PROPERLY — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off to the lock position. Disconnect the affected component harness connector. **Note: Check connectors - Clean/repair as necessary.** Using a 12-volt test light connected to 12-volts, check the Panel Dimming Ground circuit of the affected component. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Does the test light illuminate brightly? Yes → Repair the Panel Dimming ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Ignition on, engine not running. Using a 12-volt test light connected to ground, back probe the affected component Dimming circuit at the BCM harness connector. **NOTE: The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.** Does the test light illuminate brightly? Yes → Go To 6 No → Go To 7	All
6	If there are no possible causes remaining, view repair. Repair Replace the illuminated component. Perform BODY VERIFICATION TEST - VER 1.	All
7	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
DECKLID RELEASE SOLENOID OUTPUT FAILURE

When Monitored and Set Condition:

DECKLID RELEASE SOLENOID OUTPUT FAILURE

When Monitored: During decklid release solenoid actuation.

Set Condition: The BCM detects an open or short on the decklid release solenoid driver circuit.

POSSIBLE CAUSES
GROUND CIRCUIT OPEN
DECKLID RELEASE SOLENOID DRIVER CIRCUIT SHORTED TO VOLTAGE
DECKLID RELEASE SOLENOID OPEN
WIRING HARNESS INTERMITTENT DEFECT
DECKLID RELEASE SOLENOID DRIVER CIRCUIT SHORTED TO GROUND
DECKLID RELEASE SOLENOID DRIVER CIRCUIT OPEN
BODY CONTROL MODULE - DECKLID RELEASE SOLENOID DRIVER CIRCUIT SHORT TO VOLTAGE
BODY CONTROL MODULE - DECKLID RELEASE SOLENOID DRIVER INOPERATIVE

TEST	ACTION	APPLICABILITY
1	With the DRBIII, erase DTC's. Press the decklid release switch several times. With the DRBIII, read DTC's. Did this DTC reset? Yes → Go To 2 No → Go To 10	All
2	Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Turn the ignition on. Using a 12-volt Test Light connected to ground, check the Decklid Release Solenoid Driver circuit. Is the test light illuminated? Yes → Go To 3 No → Go To 5	All

DECKLID RELEASE SOLENOID OUTPUT FAILURE — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Disconnect the Body Control Module C4 connector. Turn the ignition on. Measure the voltage of the Decklid Release Solenoid Driver circuit in the Decklid Release Solenoid connector. Is there any voltage present? Yes → Repair the Decklid Release Solenoid Driver circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Measure the resistance between ground and the ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Connect a 12-volt Test Light between the Decklid Release Solenoid Driver ckt and the ground circuit (cavs 1 and 3). Press the decklid release switch several times and observe the test light. Did the test light illuminate when the switch was pressed? Yes → Replace the Decklid Release Solenoid. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Disconnect the Body Control Module C4 connector. Measure the resistance between ground and the Decklid Release Solenoid Driver circuit. Is the resistance below 5.0 ohms? Yes → Repair the Decklid Release Solenoid Driver circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 8	All

DECKLID RELEASE SOLENOID OUTPUT FAILURE — Continued

TEST	ACTION	APPLICABILITY
8	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Disconnect the Body Control Module C4 connector Measure the resistance of the Decklid Release Solenoid Driver circuit between the Decklid Release Solenoid/Ajar Switch connector and the BCM C4 connector. Is the resistance below 5.0 ohms? Yes → Go To 9 No → Repair the Decklid Release Solenoid Driver circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
9	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All
10	Turn the ignition off. **Note: Visually inspect the related wiring harness. Look for any chafed, pierced, pinched, or partially broken wires.** **Note: Visually inspect the related wire harness connectors. Look for broken, bent, pushed out, or corroded terminals.** Were any problems found? Yes → Repair wiring harness/connectors as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
DECKLID RELEASE SWITCH FAILURE

When Monitored and Set Condition:

DECKLID RELEASE SWITCH FAILURE

When Monitored: Continuously.

Set Condition: The BCM detects the decklid release switch stuck in the depressed condition for more than 30 seconds.

POSSIBLE CAUSES
DECKLID RELEASE SWITCH SHORTED
DECKLID RELEASE SWITCH SENSE CIRCUIT SHORT TO GROUND
WIRING HARNESS INTERMITTENT DEFECT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII, erase DTC's. Cycle the ignition switch from off to on and wait at least 30 seconds. With the DRBIII, read DTC's. Did this DTC reset? Yes → Go To 2 No → Go To 5	All
2	Disconnect the Decklid Release Switch harness connector. With the DRBIII, erase DTC's. Cycle the ignition switch from off to on and wait at least 30 seconds. With the DRBIII, read DTC's. Did this DTC reset? Yes → Go To 3 No → Replace the Decklid Release Switch. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Decklid Release Switch harness connector. Disconnect the BCM ″C2″ harness connector. Turn the ignition on. Measure the resistance between ground and the Decklid Release Switch Sense circuit. Is the resistance below 100.0 ohms? Yes → Repair the Decklid Release Switch Sense circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

DECKLID RELEASE SWITCH FAILURE — Continued

TEST	ACTION	APPLICABILITY
4	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module Module. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. **Note: Visually inspect the related wiring harness. Look for any chafed, pierced, pinched, or partially broken wires.** **Note: Visually inspect the related wire harness connectors. Look for broken, bent, pushed out, or corroded terminals.** Were any problems found? Yes → Repair wiring harness/connectors as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:
DOOR LOCK SWITCH FAILURE

When Monitored and Set Condition:

DOOR LOCK SWITCH FAILURE

When Monitored: Continuously

Set Condition: When the BCM detects a signal on the Driver or Passenger Door Lock Switch for over 8 seconds this code will set. If the voltage is over 5.5 volts for over 8 seconds, both door lock switches will be inoperative until the offending input is corrected. This is an active code only.

POSSIBLE CAUSES
DRIVER DOOR LOCK SWITCH SHORTED
PASSENGER DOOR LOCK SWITCH SHORTED
DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO VOLTAGE
PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO VOLTAGE
SYSTEM INTERMITTENT
BODY CONTROL MODULE - DOOR LOCK SWITCH SHORTED

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase DTC's. Operate both door lock switches to the lock and unlock positions several times. With the DRBIII®, read DTC's. Did this DTC reset? Yes → Go To 2 No → Go To 7	All
2	Disconnect the Driver Door Lock Switch harness connector. Turn the ignition on. With the DRBIII, enter BODY COMPUTER then SENSORS and observe the Dr Lock SW voltage Is there any voltage present? Yes → Go To 3 No → Replace the Driver Door Lock Switch. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Passenger Door Lock Switch harness connector. Turn the ignition on. With the DRBIII, enter BODY COMPUTER then SENSORS and observe the Dr Lock SW voltage Is there any voltage present? Yes → Go To 4 No → Replace the Passenger Door Lock Switch. Perform BODY VERIFICATION TEST - VER 1.	All

DOOR LOCK SWITCH FAILURE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the BCM ″C4″ harness connector. Disconnect the Driver Door Lock Switch connector. Turn the ignition on. Measure the voltage of the Driver Door Lock Switch Mux circuit. Is there any voltage present? Yes → Repair the Driver Door Lock Switch Mux circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Turn the ignition off. Disconnect the BCM ″C4″ harness connector. Disconnect the Passenger Door Lock Switch connector. Turn the ignition on. Measure the voltage of the Passenger Door Lock Switch Mux circuit. Is there any voltage present? Yes → Repair the Passenger Door Lock Switch Mux circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All
7	Turn the ignition off. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors. Check for either switch possibly sticking Were any problems found? Yes → Repair or replace as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

DRIVER DOOR CENTRAL LOCK (ARM)/UNLOCK (DISARM) SWITCH FAILURE

When Monitored and Set Condition:

DRIVER DOOR CENTRAL LOCK (ARM)/UNLOCK (DISARM) SWITCH FAILURE

When Monitored: Continuously

Set Condition: If the BCM detect a signal on the Driver Cylinder Lock Switch Mux circuit for over 10 seconds this code will set and will ignore the offending input until it is corrected.

POSSIBLE CAUSES
BINDING DRIVER CYLINDER LOCK SWITCH
DRIVER CYLINDER LOCK SWITCH SHORTED TO VOLTAGE
DRIVER CYLINDER LOCK SWITCH MUX CIRCUIT SHORTED TO VOLTAGE
WIRING HARNESS INTERMITTENT DEFECT
BODY CONTROL MODULE - DRIVER CYLINDER LOCK SWITCH FAILURE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase DTC's. Insert the key in the Driver Cylinder Lock Switch and rotate the key to the lock and unlock positions several times. With the DRBIII®, read DTC's. Did this DTC reset? Yes → Go To 2 No → Go To 6	All
2	Insert the key in the Driver Cylinder Lock Switch and rotate the key to the lock and unlock positions. Does the key bind in any position? Yes → Repair or replace the Driver Cylinder Lock Switch as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Disconnect the Driver Cylinder Lock Switch harness connector. Turn the ignition on. With the DRBIII, enter ″Body Computer″ then ″Sensors″ and observe the Dr Door Disarm SW voltage Is there any voltage present? Yes → Go To 4 No → Replace the Driver Cylinder Lock Switch. Perform BODY VERIFICATION TEST - VER 1.	All

DRIVER DOOR CENTRAL LOCK (ARM)/UNLOCK (DISARM) SWITCH FAILURE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Driver Cylinder Lock Switch harness connector. Disconnect the BCM ″C4″ harness connector. Turn the ignition on. Measure the voltage of the Driver Cylinder Lock Switch Mux circuit. Is there any voltage present? Yes → Repair the Driver Cylinder Lock Switch Mux circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
6	Turn the ignition off. **NOTE: Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.** Were any problems found? Yes → Repair wiring harness or connectors as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

RKE FOB BATTERY LOW

When Monitored and Set Condition:

RKE FOB BATTERY LOW

When Monitored: Anytime an RKE message is received from the transmitter.

Set Condition: RKE receiver detects an RKE FOB battery low signal (less than 3 volts) for 5 consecutive button presses.

POSSIBLE CAUSES
BATTERIES LOW
TRANSMITTER - LOW VOLTAGE OUTPUT

TEST	ACTION	APPLICABILITY
1	To determine which transmitter set the code, press any button on each transmitter. If a chime in the BCM is heard when a button is pressed, that is the problem transmitter. Test the voltage of each battery in the problem transmitter.. Is the voltage at or above 3.0 in each battery? Yes → Replace the RKE Transmitter. Perform BODY VERIFICATION TEST - VER 1. No → Replace the batteries. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

RKE PROGRAM MODE ENTERED WITHOUT PROGRAM REQUEST

When Monitored and Set Condition:

RKE PROGRAM MODE ENTERED WITHOUT PROGRAM REQUEST

When Monitored: Continuously.

Set Condition: The BCM receives an indication from the RKE module that it has entered program mode without the BCM requesting so.

POSSIBLE CAUSES
REMOTE KEYLESS ENTRY MODULE
RKE PROGRAM MODE ENTERED WITHOUT PROGRAM REQUEST

TEST	ACTION	APPLICABILITY
1	**Note: This DTC will only set if the BCM receives an indication from the RKE module that it has entered program mode without the BCM requesting so.** Replace the Remote Keyless Entry Module and program a transmitter.. With the DRBIII, clear DTCs. Operate the Door Locks several times with the RKE transmitter. With the DRBIII®, read DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → If the replaced module was a test unit only, replace the RKE module. Program all transmitters used with this vehicle. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

RKE UNABLE TO ENTER PROGRAM MODE

When Monitored and Set Condition:

RKE UNABLE TO ENTER PROGRAM MODE

When Monitored: While attempting to program RKE.

Set Condition: Lack of response from the RKE module while attempting to put it in program mode.

POSSIBLE CAUSES
REMOTE KEYLESS ENTRY MODULE
RKE UNABLE TO ENTER PROGRAM MODE

TEST	ACTION	APPLICABILITY
1	**Note: This DTC will only set when attempting to enter the program RKE mode.** Replace the Remote Keyless Entry Module. With the DRB, Clear DTC's With the DRB, attempt to enter the RKE program mode. With the DRB, check DTC's. Did this DTC reset? Yes → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. No → If the replaced module was a test unit only, replace the RKE module. Program all transmitters used with this vehicle. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ALL DOORS EXCEPT DRIVER FAILING TO UNLOCK FROM ANY SWITCH**

POSSIBLE CAUSES
DOOR UNLOCK RELAY OUTPUT CIRCUIT SHORT TO GROUND
BODY CONTROL MODULE - UNLOCK RELAY

TEST	ACTION	APPLICABILITY
1	Disconnect the Body Control Module C4 connector. Measure the resistance between ground and the any Unlock Relay Output circuits in the BCM C4 connector.. Is the resistance below 1000.0 ohms (should be infinite)? Yes → Repair the Door Unlock Relay Output circuits as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	If there are no possible causes remaining, view repair Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ALL DOORS FAILING TO LOCK AND UNLOCK FROM ANY SWITCH**

POSSIBLE CAUSES
JUNCTION BLOCK - FUSED B(+) OPEN
OPEN FUSE #9
OBSERVE THE DOOR LOCK SWITCH VOLTAGE STATUS
OBSERVE THE DOOR LOCK SWITCH VOLTAGE STATUS WITH SWITCH IN THE LOCK POSITION
FUSED B+ CKT OPEN
LOCK OR UNLOCK RELAY OUTPUT OPEN
DRIVER DOOR SWITCH MUX CIRCUIT SHORT TO GROUND
DRIVER DOOR SWITCH MUX CIRCUITSHORT TO GROUND
PASSENGER DOOR LOCK SWITCH SHORT TO GROUND
GROUND CIRCUIT OPEN
PASSENAGER DOOR SWITCH MUX CIRCUITSHORT TO GROUND
BODY CONTROL MODULE - LOCK RELAY CIRCUIT OPEN
BODY CONTROL MODULE- CONTROL SHORTED

TEST	ACTION	APPLICABILITY
1	Lower the drivers window. Remove the ignition key. Unlock all doors. With the DRBIII®, actuate the Door Lock Relay. Do the doors lock during the actuation test? Yes → Go To 2 No → Go To 10	All
2	With the DRBIII, observe the Door Lock Switch Voltage. Is the voltage above 0.2 volts? Yes → Refer to symptom DOOR LOCK SWITCH FAILURE in the POWER DOOR LOCK/RKE category. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	With the DRBIII, observe the Door Lock Switch voltage Press and hold the Driver Door Lock Switch in the lock position and observe the DRB. Is the voltage above 2.2 volts with the switch pressed in the lock position? Yes → Replace the Body Control Module - Control open. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ANY SWITCH — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Driver Door Lock Switch connector. Measure the voltage of the Fused B+ circuit. Is the voltage above 10.0 volts? Yes → Go To 5 No → Repair the open Fused B+ circuit. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Driver Door Lock Switch connector. Disconnect the BCM ″C4″ harness connector. Measure the resistance of the Driver Door Switch MUX circuit to ground. Is the resistance below 1000.0 ohms? Yes → Repair the Driver Door Switch MUX circuit to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Ensure the Driver Door Lock Switch is connected before proceeding Disconnect the BCM ″C4″ harness connector. Measure the resistance of the Driver Door Switch MUX circuit in the BCM C4 connector to ground. Is the resistance below 1000.0 ohms? Yes → Replace the Driver Door Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Ensure the Passenger Door Lock Switch is connected before proceeding Disconnect the BCM ″C4″ harness connector. Measure the resistance of the Passenger Door Switch MUX circuit in the BCM C4 connector to ground. Is the resistance below 1000.0 ohms? Yes → Replace the Passenger Door Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 8	All
8	Turn the ignition off. Disconnect the Passenger Door Lock Switch connector. Disconnect the BCM ″C4″ harness connector. Measure the resistance of the Passenger Door Switch MUX circuit to ground. Is the resistance below 1000.0 ohms? Yes → Repair the Passenger Door Switch MUX circuit to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ANY SWITCH — Continued

TEST	ACTION	APPLICABILITY
10	Test both sides of fuse #9 for battery voltage. Is the fuse or circuit open? Yes → Replace the fuse or repair the open circuit as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	Disconnect the Body Control Module C4 connector. Connect a jumper wire from the ground to the Passenger Unlock Relay Output circuit in the C4 connector. Momentarily connect the jumper wire from a fused B(+) supply to the Passenger Lock Output circuit in the C4 connector and observe the door locks. Reverse the jumper wires to drive the motor in the unlock position. Did the door lock and unlock? Yes → Using the wiring diagram/schmatic as a guide, repair the open Lock or Unlock Relay Output circuits as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Go To 12	All
12	Turn the ignition off. Remove the Body Control Module from the Junction Block. Using a 12-volt test light connected to 12-volts, check the Ground circuit. Does the test light illuminate brightly? Yes → Go To 13 No → Repair the open Ground circuit through the junction block. Perform BODY VERIFICATION TEST - VER 1.	All
13	Turn the ignition off. Remove the Body Control Module from the Junction Block. Measure the voltage between the Fused B(+) circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 14 No → Replace the Junction Block. Perform BODY VERIFICATION TEST - VER 1.	All
14	If there are no possible causes remaining, view repair Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ALL DOORS FAILING TO LOCK AND UNLOCK FROM ONE SWITCH**

POSSIBLE CAUSES
FUSED B(+) CIRCUIT OPEN
FUSED B(+) CIRCUIT OPEN
DOOR CYLINDER LOCK SWITCH MUX CIRCUIT SHORT TO GROUND
DOOR SWITCH MUX CIRCUIT SHORT TO GROUND
DOOR CYLINDER LOCK SWITCH MUX CIRCUIT OPEN
DOOR SWITCH MUX CIRCUIT OPEN
POWER DOOR LOCK SWITCH OPEN
DOOR CYLINDER LOCK SWITCH OPEN
BODY CONTROL MODULE - DOOR CYLINDER LOCK SWITCH SENSE OPEN
BODY CONTROL MODULE - DOOR LOCK SWITCH SENSE OPEN

TEST	ACTION	APPLICABILITY
1	Operate the door locks from the door lock switches and the door cylinder lock switches (if equipped). Is the problem with a Door Cylinder Lock Switch (VTSS)? Yes → Go To 2 No → Go To 7	All
2	Disconnect the inoperative Door Cylinder Lock Switch connector. Measure the voltage between the Fused B(+) circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 3 No → Repair the Fused B(+) circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the inoperative Door Cylinder Lock Switch connector. Disconnect the BCM C4 connector. Measure the resistance between ground and the Cylinder Lock Switch Mux circuit. Is the resistance below 1000.0 ohms? Yes → Repair the Door Cylinder Lock Switch Mux circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ONE SWITCH — Continued

TEST	ACTION	APPLICABILITY
4	Disconnect the inoperative Door Cylinder Lock Switch connector. Disconnect the BCM C4 connector. Measure the resistance of the Cylinder Lock Switch Mux circuit between the Switch connector and the BCM C4 connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Door Cylinder Lock Switch Mux circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	Disconnect the inoperative Door Cylinder Lock Switch connector. Connect a jumper wire between the appropriate Cylinder Lock Switch Mux circuit and Fused B(+). With the DRBIII® in Sensors, read the appropriate Door Arm/Disarm Switch voltage. Is the voltage above 9.0 volts? Yes → Replace the appropriate Door Cylinder Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All
7	Disconnect the inoperative Door Lock Switch connector. Measure the voltage between the Fused B(+) circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 8 No → Repair the Fused B(+) circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	Disconnect the inoperative Door Lock Switch connector. Disconnect the BCM C4 connector. Measure the resistance between ground and the Door Switch Mux circuit. Is the resistance below 1000.0 ohms? Yes → Repair the Door Switch Mux circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 9	All
9	Disconnect the inoperative Door Lock Switch connector. Disconnect the Body Control Module C4 connector. Measure the resistance of the Door Switch Mux circuit between the Door Lock Switch connector and the BCM C4 connector. Is the resistance below 5.0 ohms? Yes → Go To 10 No → Repair the Door Switch Mux circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*ALL DOORS FAILING TO LOCK AND UNLOCK FROM ONE SWITCH — Continued

TEST	ACTION	APPLICABILITY
10	Disconnect the inoperative Door Lock Switch connector. Connect a jumper wire between the Door Switch Mux circuit and Fused B(+). With the DRBIII®, read the Door Lock Sw Volts status. Is the voltage above 9.0 volts? Yes → Replace the Power Door Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 11	All
11	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ALL DOORS FAILING TO LOCK FROM ANY SWITCH**

POSSIBLE CAUSES
LOCK RELAY OUTPUT CIRCUIT SHORT TO GROUND
BODY CONTROL MODULE - LOCK RELAY OPEN

TEST	ACTION	APPLICABILITY
1	Disconnect the Body Control Module C4 connector. Measure the resistance between ground and any Lock Relay Output circuits in the BCM C4 connector.. Is the resistance below 1000.0 ohms (should be infinite)? Yes → Repair the Lock Relay Output circuits as necessary. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	If there are no possible causes remaining, view repair Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*ALL DOORS FAILING TO LOCK FROM ONE SWITCH

POSSIBLE CAUSES
DOOR LOCK SWITCH OR DOOR CYLINDER LOCK SWITCH OPERATION

TEST	ACTION	APPLICABILITY
1	Lower the driver door window. Operate the power door lock switch or the door cylinder lock switch in the lock position. Is a Power Door Lock Switch or a Door Cylinder Lock Switch inoperative in the lock position? Yes → Replace the Power Door Lock Switch or Door Cylinder Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

***ALL DOORS FAILING TO UNLOCK FROM ONE SWITCH**

POSSIBLE CAUSES
DOOR LOCK SWITCH OR DOOR CYLINDER LOCK SWITCH OPERATION

TEST	ACTION	APPLICABILITY
1	Operate the power door lock switch or the door cylinder lock switch in the unlock position. Is a Power Door Lock Switch or a Door Cylinder Lock Switch inoperative in the unlock position? Yes → Replace the Power Door Lock Switch or Door Cylinder Lock Switch. Perform BODY VERIFICATION TEST - VER 1. No → Test Complete.	All

Symptom:

*AUTOMATIC (ROLLING) DOOR LOCKS INOPERATIVE

POSSIBLE CAUSES
CHECK THE DOOR AJAR SWITCH STATUS
WITH THE DRB CHECK FOR PCM DTC'S
WITH THE DRB ENABLE AUTO DOOR LOCKS
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Ensure all doors are closed. With the DRBIII, enter ″Body Computer″ then ″Input/Output″ and observe all of the Door Ajar states. Does the DRBIII display CLOSED for any door ajar state? Yes → Refer to symptom for the appropriate DOOR AJAR CIRCUIT SHORTED in the DOOR AJAR category. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	With the DRBIII read ″Engine″ DTC's. Does the DRBIII display any TPS or VSS related DTC's? Yes → Refer to symptom list for problems related to DRIVEABILITY. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	With the DRBIII, enter ″Body Computer″ then ″Miscellaneous″ and observe the Rolling Door Lock status. Does the DRBIII display ROLLING DOOR LOCKS: ENABLED Yes → Go To 4 No → With the DRBIII, enable the Auto Door Locks. Perform BODY VERIFICATION TEST - VER 1.	All
4	If there are no possible causes remaining, view repair. Repair Replace and program the Body Control Module Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*DECKLID RELEASE INOPERATIVE

POSSIBLE CAUSES
CHECK DTC'S
DECKLID RELEASE SWITCH GROUND CIRCUIT OPEN
GROUND CIRCUIT OPEN
DECKLID RELEASE SOLENOID OPEN
DECKLID RELEASE SWITCH OPEN
DECKLID RELEASE SWITCH SENSE WIRE OPEN
DECKLID RELEASE SOLENOID DRIVER WIRE OPEN
BODY CONTROL MODULE
BODY CONTROL MODULE - DECKLID RELEASE SWITCH SENSE OPEN

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read DTCs. Does the DRBIII® display either DECKLID RELEASE DTC'? Yes → Refer to symptom DECKLID RELEASE DTC's in the POWER DOOR LOCK/RKE category. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Measure the resistance between ground and the ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 3 No → Repair the ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition on. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Connect a 12-volt Test Light between the Decklid Release Solenoid Driver circuit and the Ground circuit. Have someone press the decklid release switch while you observe the test light. Did the test light illuminate when the switch was pressed? Yes → Replace the Decklid Release Solenoid. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	Disconnect the Decklid Release Switch harness connector. Measure the voltage between Decklid Release Switch Sense circuit and ground. Is the voltage above 10.0 volts? Yes → Go To 5 No → Go To 9	All

*DECKLID RELEASE INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
5	Turn the ignition off. Disconnect the Decklid Release Switch harness connector. Measure the resistance between ground and the Ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
6	Ensure the Decklid Release Solenoid/Ajar Switch harness is connected before proceeding. Disconnect the Decklid Release Switch harness connector. Momentarily connect a jumper wire between the Ground circuit and the Decklid Release Switch Sense circuit in the Decklid Release Switch harness connector and listen for the solenoid to operate. Did the solenoid release operate? Yes → Replace the Decklid Release Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Turn the ignition off. Disconnect the Decklid Release Solenoid/Ajar Switch harness connector. Disconnect the Body Control Module C4 connector. Measure the resistance of the Decklid Release Solenoid Driver wire between the Decklid Release Solenoid/Ajar Switch connector and the Body Control Module C4 connector. Is the resistance below 5.0 ohms? Yes → Go To 8 No → Repair the Decklid Release Solenoid Driver wire for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All
9	Turn the ignition off. Disconnect the Decklid Release Switch harness connector. Disconnect the BCM ″C2″ harness connector. Measure the resistance of the Decklid Release Switch Sense wire between the BCM ″C2″ connector and the Decklid Release Switch connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Repair the Decklid Release Switch Sense wire for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

*DOOR LOCK INHIBIT INOPERATIVE

POSSIBLE CAUSES
CHECK THE DRIVER DOOR AJAR SWITCH STATUS
OBSERVE THE KEY-IN IGNITION SWITCH STATUS
IGNITION SWITCH OPEN
KEY-IN IGNITION SWITCH GROUND CIRCUIT OPEN
KEY-IN IGNITION SWITCH SENSE CIRCUIT OPEN
BCM - INCORRECT KEY-IN IGNITION SWITCH STATUS

TEST	ACTION	APPLICABILITY
1	Open the Driver's front door. With the DRBIII, enter ″Body Computer″ then ″Input/Output″ and observe the Driver Door Ajar status. Does the DRBIII display DRV DR AJAR SW: CLOSED? Yes → Go To 2 No → Refer to symptom DRIVER DOOR AJAR OPEN CIRCUIT in the DOOR AJAR category. Perform BODY VERIFICATION TEST - VER 1.	All
2	**NOTE: Ensure that the Key is still in the Ignition Switch.** With the DRBIII, enter ″Body Computer″ then ″Input/Output″ and read the Key-In Ignition Switch status. Does the DRBIII display: KEY-IN IGN SW: CLOSED? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Disconnect the Ignition Switch C3 connector. Connect a jumper between the Key-In Ignition Switch Sense circuit and Ground circuit. With the DRBIII, enter ″Body Computer″ then ″Input/Output″ and observe the Key-In Ignition Switch status. Does the DRBIII display KEY-IN IGN: CLOSED? Yes → Replace the Ignition Switch. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

*DOOR LOCK INHIBIT INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Disconnect the Ignition Switch C3 connector. Turn all lights off. Measure the resistance between ground and the Ground circuit in the Ignition Switch C3 connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	Turn the ignition off. Disconnect the Ignition Switch C3 connector. Disconnect the Body Control Module ″C1″ harness connector. Measure the resistance of the Key-In Ignition Switch Sense circuit between the ignition switch connector and the BCM ″C2″ connector. Is the resistance below 5.0 ohms? Yes → Go To 6 No → Repair the Key-In Ignition Switch Sense circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
6	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DRIVER DOOR FAILS TO LOCK FROM ANY SWITCH**

POSSIBLE CAUSES
DRIVER LOCK RELAY OUTPUT SHORT TO GROUND
BODY CONTROL MODULE - DRIVER UNLOCK RELAY GROUND OPEN

TEST	ACTION	APPLICABILITY
1	Disconnect the Body Control Module C4 connector. Measure the resistance between ground and the Driver Lock Relay Output circuit. Is the resistance below 100.0 ohms? Yes → Repair the Driver Lock Relay Output circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module - Driver Unlock Relay Ground open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***DRIVER DOOR FAILS TO UNLOCK FROM ANY SWITCH**

POSSIBLE CAUSES
DRIVER DOOR UNLOCK RELAY OUTPUT CKT SHORT TO GROUND
BODY CONTROL MODULE - DRIVER DOOR UNLOCK RELAY DRIVER OPEN

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Disconnect the Body Control Module C4 connector. Measure the resistance between ground and the Driver Unlock Relay Output circuit in the Body Control Module C4 connector Is the resistance below 100.0 ohm? No → Replace the Body Control Module in accordance with the Service Information. Perform BODY VERIFICATION TEST - VER 1. Yes → Repair the Driver Unlock Relay Output circuit for a short to ground. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***ONE DOOR FAILS TO LOCK AND UNLOCK FROM ANY SWITCH**

POSSIBLE CAUSES
DOOR LOCK MOTOR - OPEN
DRIVER LOCK RELAY OUTPUT CIRCUIT OPEN
DRIVER DOOR LOCK MOTOR - OPEN
DRIVER UNLOCK RELAY OUTPUT CIRCUIT OPEN
LOCK RELAY OUTPUT CIRCUIT OPEN
UNLOCK RELAY OUTPUT CIRCUIT OPEN
BODY CONTROL MODULE DRIVER DOOR UNLOCK RELAY OPEN

TEST	ACTION	APPLICABILITY
1	Operate the door locks to determine which door lock is not operating properly. Is there a problem with the Driver Door Lock? Yes → Go To 2 No → Go To 6	All
2	**NOTE: This test is for a motor that is completely inoperative. If the motor either locks OR unlocks refer to symptom list for problems related to DRIVER DOOR FAILING TO-.** Disconnect the Driver Door Lock Motor/Ajar Switch connector. Connect a 12-volt Test Light between the Driver Unlock Relay Output and the Driver Lock Relay Output circuits in the door lock motor connector. Press the Door Lock Switch in the Lock and Unlock positions and observe the test light. Does the Test Light flash on and off as the switch is pressed? Yes → Replace the Driver Door Lock Motor. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Disconnect the Driver Door Lock Motor/Ajar Switch connector. Disconnect the Body Control Module C4 connector. Measure the resistance of the Driver Lock Relay Output circuit between the BCM C4 connector and the Driver Door Lock Motor connector. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the Lock Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*ONE DOOR FAILS TO LOCK AND UNLOCK FROM ANY SWITCH — Continued

TEST	ACTION	APPLICABILITY
4	Disconnect the Driver Door Lock Motor/Ajar Switch connector. Disconnect the Body Control Module C4 connector. Measure the resistance of the Driver Unlock Relay Output circuit between the BCM C4 connector and the Driver Door Lock Motor connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Driver Unlock Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module - Driver Door Unlock Relay open. Perform BODY VERIFICATION TEST - VER 1.	All
6	Disconnect the Door Lock Motor/Ajar Switch connector. Connect a 12-volt Test Light between the Unlock Relay Output and the Lock Relay Output circuits in the door lock motor connector. Press the Door Lock Switch in the Lock and Unlock positions and observe the test light. Does the Test Light flash on and off as the switch is pressed? Yes → Replace the Door Lock Motor. Perform BODY VERIFICATION TEST - VER 1. No → Go To 7	All
7	Disconnect the appropriate Door Lock Motor/Ajar Switch connector. Using a 12-volt test light connected to ground, check the Lock Relay Output circuit. With the DRBIII®, actuate the Door Lock Relay and observe the Test Light. Did the Test Light flash as the relay was actuated? Yes → Go To 8 No → Repair the Lock Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
8	Disconnect the appropriate Door Lock Motor/Ajar Switch connector. Using a 12-volt test light connected to ground, check the Unlock Relay Output circuit. With the DRBIII®, actuate the Door Unlock Relay and observe the Test Light. Did the Test Light flash as the relay was actuated? Yes → Test Complete. No → Repair the Unlock Relay Output circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***REMOTE KEYLESS ENTRY PROBLEM**

POSSIBLE CAUSES
RKE DTC'S PRESENT
TEST TRANSMITTER WITH TESTER
RKE TRANSMITTER NOT PROGRAMMED
TESTING THE REMOTE KEYLESS ENTRY MODULE
REPLACE TRANSMITTER
RKE MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read DTCs. Are there any RKE related codes present? Yes → Refer to symptom list for problems related to POWER DOOR LOCKS/RKE. Perform BODY VERIFICATION TEST - VER 1. No → Go To 2	All
2	Do you have access to the Miller Special Tool ″9001 RF DETECTOR″? Yes → Go To 3 No → Go To 5	All
3	Using the 9001 RF Detector, follow the instructions on the back of the tester and test the transmitter several times. Does the signal strength display ″STRONG″? Yes → Go To 4 No → Replace the transmitter. Perform BODY VERIFICATION TEST - VER 1.	All
4	With the DRBIII® select BODY, BODY COMPUTER, MISCELLANEOUS, then PROGRAM RKE. Follow instructions on the screen. Exit PROGRAM RKE. Try the Door Locks using the Transmitter. Did the Door Locks respond properly to the Transmitter commands ? Yes → Repair complete. Using the DRBIII®, program all other Transmitters used with this Vehicle. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Remote Keyless Entry Module and reprogram all transmitters used with this vehicle. Perform BODY VERIFICATION TEST - VER 1.	All

*REMOTE KEYLESS ENTRY PROBLEM — Continued

TEST	ACTION	APPLICABILITY
5	Secure a known good transmitter from another JR or LH vehicle. With the DRBIII, enter BODY, BODY COMPUTER, MISCELLANEOUS then PROGRAM RKE and follow the instructions to program the substitute transmitter. **NOTE: If the RKE module will not go into programming mode, replace the RKE module and continue testing.** With the DRBIII, enter BODY, BODY COMPUTER, MISCELLANEOUS then RKE FOB TEST and follow the instructions on the DRB. Did the substitute RKE Transmitter respond correctly? No → Replace the Remote Keyless Entry (RKE) Module and reprogram all vehicle transmitters following the instructions on the DRBIII. Perform BODY VERIFICATION TEST - VER 1. Yes → Replace the RKE transmitter and reprogram all others used with this vehicle.. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***RKE HORN CHIRP INOPERATIVE**

POSSIBLE CAUSES
CHECK THE HORN OPERATION
CHECK THE RKE HORN CHIRP STATUS
BODY CONTROL MODULE - HORN RELAY CONTROL OPEN

TEST	ACTION	APPLICABILITY
1	Press the horn button on the steering wheel. Does the horn sound? Yes → Go To 2 No → Refer to symptom HORNS FAIL TO SOUND in the VEHICLE THEFT SECURITY SYSTEM category. Perform BODY VERIFICATION TEST - VER 1.	All
2	With the DRBIII, enter ″Body Computer″, ″Miscellaneous″ then ″RKE Horn Chirp″ and observe the horn chirp status. Does the DRBIII display HORN CHIRP: DISABLED? Yes → With the DRBIII, enable the Horn Chirp. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
POWER TOP SWITCH OPEN OR SHORTED TO BATTERY

When Monitored and Set Condition:

POWER TOP SWITCH OPEN OR SHORTED TO BATTERY

When Monitored: Whenever the ignition is on.

Set Condition: Normal power top switch voltage is approximately 1.0 to 11.5 volts. When the BCM senses voltage above this threshold for over 10 seconds, this code will set.

POSSIBLE CAUSES
DTC PRESENT
CONVERTIBLE TOP SWITCH GROUND OPEN
CONVERTIBLE TOP SWITCH MUX WIRE OPEN
CONVERTIBLE TOP SWITCH MUX WIRE SHORT TO BATTERY
CONVERTIBLE TOP SWITCH OPEN
CONVERTIBLE TOP SWITCH SHORT TO BATTERY
BODY CONTROL MODULE - CONVERTIBLE TOP SWITCH MUX OPEN

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase DTCs. Turn the ignition on. Operate the power top in all positions including the 4 window drop position. With the DRBIII®, read DTCs. Does the DRBIII® display POWER TOP SWITCH OPEN OR SHORTED TO BATTERY? Yes → Go To 2 No → Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for a possible intermittent open or short to battery. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Body Control Module C4 connector. Measure the voltage of the Convertible Top Switch Mux circuit to ground. Is there any voltage present? Yes → Go To 3 No → Go To 4	All

POWER TOP SWITCH OPEN OR SHORTED TO BATTERY — Continued

TEST	ACTION	APPLICABILITY
3	Disconnect the Body Control Module C4 connector. Disconnect the Power Top Switch connector. Measure the voltage of the Convertible Top Switch Mux circuit to ground. Is there any voltage present? Yes → Repair the Convertible Top Switch Mux wire for a short to battery. Perform BODY VERIFICATION TEST - VER 1. No → Replace Convertible Top Switch. Perform BODY VERIFICATION TEST - VER 1.	All
4	Disconnect the Body Control Module C4 connector. Measure the resistance between ground and the Convertible Top Switch Mux circuit. Is the resistance between 4500.0 and 4900,0 ohms? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Go To 5	All
5	Disconnect the Power Top Switch connector. Using a 12-volt test light connected to 12-volts, check the Ground circuit in the Power Top Switch connector. Does the test light illuminate brightly? Yes → Go To 6 No → Repair the Ground circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
6	Disconnect the Body Control Module C4 connector. Disconnect the Power Top Switch connector. Measure the resistance of the Convertible Top Switch Mux circuit from the BCM C4 connector to the Power Top Switch connector. Is the resistance below 5.0 ohms? Yes → Go To 7 No → Repair the Convertible Top Switch Mux wire for an open. Perform BODY VERIFICATION TEST - VER 1.	All
7	If there are no possible causes remaining, view repair. Repair Replace the Convertible Top Switch. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

POWER TOP SWITCH SHORTED TO GROUND

When Monitored and Set Condition:

POWER TOP SWITCH SHORTED TO GROUND

When Monitored: Whenever the ignition is on.

Set Condition: Normal power top switch voltage is approximately 1.0 to 11.5 volts. When the BCM senses voltage under 1.0 volts for over 10 seconds, this code will set.

POSSIBLE CAUSES
DTC PRESENT
POWER TOP SWITCH SHORTED TO GROUND
CONVERTIBLE TOP SWITCH MUX WIRE SHORT TO GROUND
BODY CONTROL MODULE - CONVERTIBLE TOP SWITCH MUX SHORT TO GROUND

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase DTCs. Turn the ignition on. Operate the power top in all positions including the 4 window drop position. With the DRBIII®, read DTCs. Does the DRBIII® display POWER TOP SWITCH SHORTED TO GROUND? Yes → Go To 2 No → Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for a possible intermittent short to ground. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Power Top Switch connector. With the DRBIII®, erase DTCs. Cycle the ignition switch from OFF to ON. With the DRBIII®, read DTCs. Does the DRBIII® display POWER TOP SWITCH SHORTED TO GROUND? Yes → Go To 3 No → Replace the Power Top Switch. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Body Control Module C4 connector. Disconnect the Power Top Switch connector. Measure the resistance between ground and the Convertible Top Switch Mux circuit. Is the resistance below 100.0 ohms? Yes → Repair the Convertible Top Switch Mux wire for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

POWER TOP SWITCH SHORTED TO GROUND — Continued

TEST	ACTION	APPLICABILITY
4	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

POWER TOP SWITCH STUCK

When Monitored and Set Condition:

POWER TOP SWITCH STUCK

When Monitored: Whenever the ignition is on.

Set Condition: Normal operation of this switch consists of pressing it for only a few seconds. If the BCM detects the switch stuck in a depressed condition for more than 28 seconds, this code will set and the BCM will ignore the input until the condition is corrected.

POSSIBLE CAUSES
DTC PRESENT
POWER TOP SWITCH STUCK
CONVERTIBLE TOP SWITCH MUX WIRE SHORT TO GROUND
BODY CONTROL MODULE - CONVERTIBLE TOP SWITCH MUX

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, erase DTCs. Turn the ignition on. Operate the power top in all positions including the 4 window drop position. With the DRBIII®, read DTCs. Does the DRBIII® display POWER TOP SWITCH STUCK? Yes → Go To 2 No → Check the switch for a possible sticking condition. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors for a possible intermittent short to ground. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the Power Top Switch connector. With the DRBIII®, erase DTCs. Cycle the ignition switch from OFF to ON. Wait one minute. With the DRBIII®, read DTCs. Does the DRBIII® display POWER TOP SWITCH STUCK? Yes → Go To 3 No → Replace the Power Top Switch. Perform BODY VERIFICATION TEST - VER 1.	All

POWER TOP SWITCH STUCK — Continued

TEST	ACTION	APPLICABILITY
3	Disconnect the Body Control Module C4 connector. Disconnect the Power Top Switch connector. Measure the resistance between ground and the Convertible Top Switch Mux circuit. Is the resistance below 100.0 ohms? Yes → Repair the Convertible Top Switch Mux wire for a short to ground. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All
4	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
*FOUR WINDOW DROP INOPERATIVE

POSSIBLE CAUSES
DTC PRESENT
CONVERTIBLE TOP SWITCH
FUSED IGNITION SWITCH OUTPUT OPEN
WINDOW DOWN RELAY CONTROL OPEN
WINDOW DROP RELAY ASSEMBLY OPEN
BODY CONTROL MODULE - WINDOW DOWN RELAY CONTROL OPEN

TEST	ACTION	APPLICABILITY
1	**NOTE: Ensure the power windows are operating properly from the master switch before proceeding.** Turn the ignition on. With the DRBIII®, read DTCs. Does the DRBIII® display any POWER TOP SWITCH ----DTC's? No → Go To 2 Yes → Refer to symptom POWER TOP SWITCH --- in the POWER TOP category. Perform BODY VERIFICATION TEST - VER 1.	All
2	Prepare the vehicle for the top to operate. With the DRBIII®, read the CONVERT TOP SW voltage Press the Top Switch to the second detent and observe the voltage. Is the voltage between 1.6 and 2.2 volts when the switch is pressed? Yes → Go To 3 No → Replace the Power Top Switch. Perform BODY VERIFICATION TEST - VER 1.	All
3	Disconnect the Window Drop Relay Assembly connector. Turn the ignition on. Using a 12-volt test light connected to ground, check all Fused Ignition Switch Output circuits. Does the test light illuminate brightly on all circuits? Yes → Go To 4 No → Using the schematic as a guide, repair the Fused Ignition Switch Output circuit(s) for an open. Perform BODY VERIFICATION TEST - VER 1.	All

*FOUR WINDOW DROP INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
4	Disconnect the Window Drop Relay Assembly connector. Disconnect the Body Control Module C4 connector. Turn the ignition off. Measure the resistance of the Window Down Relay Control circuit between the Window Drop Relay Assembly connector and the BCM C4 connector. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Window Down Relay Control circuit for an open. Perform BODY VERIFICATION TEST - VER 1.	All
5	Disconnect the Body Control Module C4 connector. Turn the ignition on. Momentarily connect a jumper wire between ground and the Window Down Relay Control circuit in the BCM C4 connector. Did all four windows go down when the wire was grounded? Yes → Go To 6 No → Replace the Window Drop Relay Assembly. Perform BODY VERIFICATION TEST - VER 1.	All
6	If there are no possible causes remaining, view repair. Repair Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
DECKLID SWITCH DISARM FAILURE

When Monitored and Set Condition:

DECKLID SWITCH DISARM FAILURE

When Monitored: Continuously

Set Condition: If the decklid disarm switch is sensed in the open position for greater than 30 seconds.

POSSIBLE CAUSES
INTERMITTENT CONDITION
DECKLID CYLINDER LOCK SWITCH GROUND OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION
DECKLID CYLINDER LOCK SWITCH OPEN
DECKLID SECURITY SWITCH SENSE CIRCUIT OPEN

TEST	ACTION	APPLICABILITY
1	NOTE: When this code is present, the VTSS indicator will illuminate solid during the arming process. With the DRBIII®, record and erase DTC's. Cycle the ignition switch from ON to OFF. With the DRBIII®, read DTC's. Operate the Decklid Cylinder Lock Switch several times while monitoring the DRBIII®. Does the DRBIII® display DECKLID SWITCH DISARM FAILURE? Yes → Go To 2 No → The condition that caused this symptom is currently not present. Using the wiring diagram/schematic as a guide, inspect the related wiring harness and connectors for a possible intermittent condition.	All
2	Disconnect the Decklid Cylinder Lock Switch connector. Using a 12-volt test light connected to 12-volts, test the Ground circuit for continuity. Does the test light illuminate brightly? Yes → Go To 3 No → Repair the Ground circuit for an open. Perform VTSS VERIFICATION TEST - 1A.	All

DECKLID SWITCH DISARM FAILURE — Continued

TEST	ACTION	APPLICABILITY
3	Disconnect the Decklid Cylinder Lock Switch connector. Connect a jumper wire between the Decklid Security Switch Sense circuit and the ground wire. With the DRBIII® in Inputs/Outputs, read the DECKLID KEY CYL SW state. Does the DRBIII® display CLOSED? Yes → Replace the Decklid Cylinder Lock Switch. Perform VTSS VERIFICATION TEST - 1A. No → Go To 4	All
4	Disconnect the Body Control Module C4 harness connector. Disconnect the Decklid Cylinder Lock Switch harness connector. Measure the resistance of the Sense circuit. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Repair the Decklid Security Switch Sense circuit for an open. Perform VTSS VERIFICATION TEST - 1A.	All

Symptom:

***ALARM TRIPS ON ITS OWN**

POSSIBLE CAUSES
ALARM INPUT STATUS
INTERMITTENT CONDITION

TEST	ACTION	APPLICABILITY
1	With the DRBIII® in Inputs/Outputs, read the Last VTSS Cause state. Were there any causes displayed? Yes → Check for a possible intermittent condition with the circuit indicated by the DRBIII®. No → The condition that caused this symptom is currently not present. Inspect the related wiring harness for a possible intermittent condition. Look for any chafed, pierced, pinched or partially broken wires.	All

Symptom:

***COURTESY LAMPS INOPERATIVE WITH ALARM TRIPPED**

POSSIBLE CAUSES
COURTESY LAMPS INOPERATIVE
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	Turn the Courtesy Lamps on. Do the Courtesy Lamps operate properly? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to symptom COURTESY LAMPS INOPERATIVE - ALL LAMPS in the INTERIOR LIGHTING category.	All

Symptom:

*DRIVER DOOR KEY FAILS TO ARM OR DISARM VTSS

POSSIBLE CAUSES
DOOR SWITCH FAILURE

TEST	ACTION	APPLICABILITY
1	For this failure, proceed with diagnosis. For this condition: Refer to symptom DOOR CENTRAL LOCK/UNLOCK SWITCH FAILURE in the POWER DOOR LOCKS/RKE CATAGORY.	All

Symptom:

***HEADLAMPS INOPERATIVE WITH ALARM TRIPPED (IF ENABLED)**

POSSIBLE CAUSES
LOW BEAM HEADLAMPS INOPERATIVE
BODY CONTROL MODULE INTERNAL MALFUNCTION
BODY CONTROL MODULE INTERNAL MALFUNCTION
HEADLAMP DELAY RELAY
JUNCTION BLOCK - OPEN FUSED B(+) CIRCUIT
JUNCTION BLOCK - OPEN HEADLAMP DELAY RELAY CONTROL CIRCUIT
HEADLAMP DELAY RELAY

TEST	ACTION	APPLICABILITY
1	Turn the Low Beam Headlamps on. Do the Low Beam Headlamps operate properly? Yes → Go To 2 No → Refer to symptom LOW BEAM HEADLAMPS WILL NOT TURN ON in the EXTERIOR LIGHTING category.	All
2	Turn the Headlamps off. With the DRBIII®, actuate the Headlamp Delay Relay. Do the Headlamps flash while actuating the Headlamp Delay Relay? Yes → Replace the Body Control Module. No → Go To 3	All
3	Remove the Headlamp Delay Relay from the Junction Block. Temporarily remove the Horn Relay from the Junction Block. Reinstall the Horn Relay in place of the Headlamp Delay Relay. With the DRBIII®, actuate the Headlamp Delay Relay. Do the Headlamps flash while actuating the Headlamp Delay Relay? Yes → Replace the Headlamp Delay Relay. No → Go To 4	All
4	Remove the Horn Relay from the Headlamp Delay Relay location in the Junction Block. Reinstall the Horn Relay to its original location. Measure the voltage of the Fused B(+) circuits at the Headlamp Delay Relay connector. Is the voltage above 10.0 volts at each cavity? Yes → Go To 5 No → Refer to symptom HEADLAMP TIME DELAY INOPERATIVE in the EXTERIOR LIGHTING category.	All

*HEADLAMPS INOPERATIVE WITH ALARM TRIPPED (IF ENABLED) — Continued

TEST	ACTION	APPLICABILITY
5	Remove the Headlamp Delay Relay from the junction block. Remove the BCM from the junction block. Connect a jumper wire between the Fused B(+) circuit and the Headlamp Delay Relay Control circuit at the Headlamp Delay Relay connector. Measure the voltage of the Headlamp Delay Relay Control circuit (cavity 5) in the BCM internal connector. Is the voltage above 10.0 volts? Yes → Go To 6 No → Replace the Junction Block. Perform VTSS VERIFICATION TEST - 1A.	All
6	Disconnect the jumper wire. Reinstall the Headlamp Delay Relay in the Junction Block. Remove the BCM from the junction block. Measure the voltage of the Headlamp Delay Relay Control circuit (cavity 5) in the BCM internal connector. Is the voltage above 10.0 volts? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Replace the Headlamp Delay Relay. Perform VTSS VERIFICATION TEST - 1A.	All

Symptom:

***HORNS FAIL TO SOUND WITH ALARM TRIPPED (IF ENABLED)**

POSSIBLE CAUSES
HORN CIRCUIT MALFUNCTION
OPEN DOOR AJAR CIRCUIT
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	A failure in the Horn Relay Control circuit, Horn Relay Output circuit, or the Door Ajar circuits could cause this failure. The Horn Relay Control circuit will be diagnosed first. Continue to the Horn Functional Test for further diagnosis. Horn Functional Test. Go To 2	All
2	With the DRBIII®, actuate the HORN RELAY. Do the Horns sound while actuating the Horn Relay. Yes → Go To 3 No → Refer to HORNS FAIL TO SOUND symptom in the VTSS catagory.	All
3	With the DRBIII®, in Inputs/Outputs, read the following Door/Decklid Ajar Switch states. DRV DR AJAR SW PAS DR AJAR SW LR DR AJAR SW (4 Door) RR DR AJAR SW (4 Door) DECKLID AJAR SW Do the Door/Decklid Ajar Switch states appear correct? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to the appropriate DOOR AJAR test in the DOOR AJAR catagory.	All

Symptom:

*VTSS DOES NOT TRIP FROM DRIVER DOOR

POSSIBLE CAUSES
BODY CONTROL MODULE
INVALID DOOR AJAR INPUT

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the DRV DR AJAR SW status. Open the driver door. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1. No → Refer to symptom DRIVER DOOR AJAR CKT OPEN in the DOOR AJAR category.	All

Symptom:

***VTSS DOES NOT TRIP FROM LEFT REAR DOOR**

POSSIBLE CAUSES
INVALID DOOR AJAR INPUT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the LR DR AJAR SW status. Open the left rear door. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to symptom LEFT REAR DOOR AJAR CKT OPEN in the DOOR AJAR category.	All

Symptom:

***VTSS DOES NOT TRIP FROM PASSENGER DOOR**

POSSIBLE CAUSES
INVALID DOOR AJAR INPUT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the PAS DR AJAR SW status. Open the passenger door. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to symptom PASSENGER DOOR AJAR CKT OPEN in the DOOR AJAR category.	All

Symptom:

***VTSS DOES NOT TRIP FROM RIGHT REAR DOOR**

POSSIBLE CAUSES
INVALID DOOR AJAR INPUT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the RR DR AJAR SW status. Open the right rear door. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to symptom RIGHT REAR DOOR AJAR CKT OPEN in the DOOR AJAR category.	All

Symptom:

***VTSS INDICATOR INOPERATIVE**

POSSIBLE CAUSES
VTSS INDICATOR LAMP TEST
OPEN FUSED B(+) CIRCUIT
OPEN JUNCTION BLOCK
INSTRUMENT CLUSTER
OPEN VTSS LED
VTSS INDICATOR DRIVER CIRCUIT OPEN
BODY CONTROL MODULE INTERNAL MALFUNCTION
OPEN FUSE #7

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, actuate the VTSS LAMP. Does the VTSS Lamp flash while actuating the Lamp? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Go To 2	All
2	Remove and inspect Fuse #7 in the Junction Block. Is the fuse open? Yes → Inspect/repair the Fused B(+) circuit for a short to ground. Replace the Fuse. Perform VTSS VERIFICATION TEST - 1A. No → Go To 3	All
3	Reinstall Fuse #7 in the Junction Block. Gain access to the Junction Block connector C7. While back probing, measure the voltage of the Fused B(+) circuit at the Junction Block connector C7. Is the voltage above 10.0 volts? Yes → Go To 4 No → Replace the Junction Block. Perform VTSS VERIFICATION TEST - 1A.	All
4	Disconnect the Instrument Cluster harness connector. Measure the voltage of the Fused B(+) circuit at cavity 21. Is the voltage above 10.0 volts? Yes → Go To 5 No → Repair the Fused B(+) circuit for an open. Perform VTSS VERIFICATION TEST - 1A.	All

*VTSS INDICATOR INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
5	Remove the VTSS Indicator Bulb from the Instrument Cluster. Inspect the VTSS Indicator Bulb and socket. Is there a problem with the bulb or socket? Yes → Repair or replace the VTSS Indicator Bulb or socket as needed. Perform VTSS VERIFICATION TEST - 1A. No → Go To 6	All
6	Disconnect the Instrument Cluster harness connector. Connect a voltmeter positive probe to a 12.0 volt supply and connect the ground probe to the VTSS Indicator Driver circuit at the Instrument Cluster connector. Turn the ignition on. With the DRB in Vehicle Theft, actuate the VTSS Indicator lamp. Is the voltage above 10.0 volts when the VTSS Indicator lamp is actuated? Yes → Replace the Instrument Cluster assembly. Perform VTSS VERIFICATION TEST - 1A. No → Go To 7	All
7	Disconnect the Instrument Cluster harness connector. Disconnect the BCM C1 harness connector. Measure the resistance of the VTSS Indicator Driver circuit between the Instrument Cluster connector and the BCM C1 connector. Is the resistance below 5.0 ohms? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Repair the VTSS Indicator Driver circuit for an open. Perform VTSS VERIFICATION TEST - 1A.	All

Symptom:

***VTSS NO TRIP FROM DECKLID**

POSSIBLE CAUSES
INVALID DECKLID AJAR INPUT
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, read the DECKLID AJAR SW status. Open the decklid. Does the DRBIII® display CLOSED? Yes → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A. No → Refer to symptom DECKLID DOOR AJAR CKT OPEN in the DOOR AJAR category.	All

Symptom:

***VTSS WILL NOT ARM**

POSSIBLE CAUSES
CHECK THE VTSS STATUS
CHECK THE BCM FOR DTCS
BODY CONTROL MODULE INTERNAL MALFUNCTION

TEST	ACTION	APPLICABILITY
1	With the DRBIII®, check that the Theft Alarm is enabled. Was the Theft Alarm enabled? Yes → Go To 2 No → With the DRBIII®, enable the Vehicle Theft Security System (VTSS). Perform VTSS VERIFICATION TEST - 1A.	All
2	With the DRBIII®, read the active DTC's. Are any VTSS related DTC's present? Yes → Refer to the Symptom List and diagnose the appropriate symptom. No → Replace the Body Control Module. Perform VTSS VERIFICATION TEST - 1A.	All

Symptom:
WIPER ON/OFF RELAY OUTPUT SHORTED HIGH

When Monitored and Set Condition:

WIPER ON/OFF RELAY OUTPUT SHORTED HIGH

When Monitored: Continuoulsy.

Set Condition: BCM detects a high level on the wiper on/off relay output when it is attempting to turn on the wipers.

POSSIBLE CAUSES
INTERMITTENT CONDITION
SHORT TO BATTERY
HI/LO WIPER RELAY
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Wipers. With the DRBIII®, read the DTC information. Does the DRBIII® read: Wiper On/Off Relay Output Shorted High? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the HI/LO Wiper Relay. Disconnect the BCM from the junction block. Measure the voltage of the HI/LO Wiper Relay Control Circuit. Is the voltage below 5.0 volts? Yes → Repair the Wiper HI/LO Relay Control Circuit for a short to battery Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Install a known good relay in place of the HI/LO Wiper Relay. Turn the Wipers on. Do the Wipers operate normally? Yes → Replace the HI/LO Wiper Relay. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

WIPER ON/OFF RELAY OUTPUT SHORTED LOW

When Monitored and Set Condition:

WIPER ON/OFF RELAY OUTPUT SHORTED LOW

When Monitored: Continuously.

Set Condition: BCM detects a low (ground) signal on the wiper on/off relay output.

POSSIBLE CAUSES
INTERMITTENT CONDITION
OPEN CIRCUIT
SHORT TO GROUND
HI/LO WIPER RELAY
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Wipers. With the DRBIII®, read the DTC information. Does the DRBIII® read: Wiper On/Off Relay Output Shorted Low? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the BCM from the junction block. Connect a jumper wire between the HI/LO Wiper Relay Control Circuit and ground With the DRBIII®, monitor the wiper relay. Does the Wiper Relay show CLOSED? Yes → Repair the HI/LO Wiper Relay Control Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All
3	Turn the ignition off. Remove the HI/LO Wiper Relay. Disconnect the BCM from the junction block. Measure the resistance of the HI/LO Wiper Relay Output Circuit. Is the resistance below 5.0 ohms? Yes → Repair the HI/LO Wiper Relay Output Circuit for a short to ground condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 4	All

WIPER ON/OFF RELAY OUTPUT SHORTED LOW — Continued

TEST	ACTION	APPLICABILITY
4	Turn the ignition off. Install a known good relay in place of the HI/LO Wiper Relay. Turn the wipers on. Do the Wipers operate normally? Yes → Replace the Wiper HI/LO Relay. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
WIPER PARK SWITCH OPEN CIRCUIT

When Monitored and Set Condition:

WIPER PARK SWITCH OPEN CIRCUIT

When Monitored: With the wipers on (any speed).

Set Condition: BCM fails to detect a park signal from the wiper motor for 18 consecutive seconds.

POSSIBLE CAUSES
INTERMITTENT CONDITION
OPEN WIPER PARK SWITCH SENSE CIRCUIT
SHORT TO BATTERY
WIPER MOTOR
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Wipers. With the DRBIII®, read the DTC information. Does the DRBIII® read: Wiper Park Switch Open Circuit? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Disconnect the BCM C3 harness connector. Connect a jumper wire between the Wiper Park Switch Sense Circuit and ground. With the DRBIII®, monitor the Wiper Park Switch. Does the Wiper Park Switch show CLOSED? Yes → Repair the Wiper Park Switch Sense Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1. No → Go To 3	All

WIPER PARK SWITCH OPEN CIRCUIT — Continued

TEST	ACTION	APPLICABILITY
3	Turn the ignition off. Disconnect the Wiper Park Switch. Disconnect the BCM from the junction block. Measure the voltage of the Wiper Relay Control Circuit. Is the voltage below 5.0 volts? Yes → Go To 4 No → Repair the HI/LO Wiper Relay Control Circuit for a short to voltage. Perform BODY VERIFICATION TEST - VER 1.	All
4	Turn the Wipers off. Disconnect the Wiper Motor Connector. With the DRBIII®, monitor the Wiper Park Switch. Connect a jumper wire between the Wiper Park Switch Sense Circuit and ground. Does the Wiper Park Switch show CLOSED? Yes → Replace the Wiper Motor. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:
WIPER PARK SWITCH SHORTED TO GROUND

When Monitored and Set Condition:

WIPER PARK SWITCH SHORTED TO GROUND

When Monitored: With the wipers on (any speed).

Set Condition: BCM fails to detect a park signal from the wiper motor.

POSSIBLE CAUSES
INTERMITTENT CONDITION
SHORT TO GROUND
WIPER SWITCH
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition on. With the DRBIII®, clear all BCM DTC's. Actuate the Wipers. With the DRBIII®, read the DTC information. Does the DRBIII® read: Wiper Park Switch Shorted to Ground? Yes → Go To 2 No → The condition that caused the symptom is currently not present. Inspect the related wiring for a possible intermittent condition. Look for any chafed, pierced, pinched, or partially broken wires. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition off. Disconnect the Junction Block Harness Connector from the front of the junction block. Disconnect the Wiper Park Switch harness connector. Remove the Body Control Module from the junction block. Using a 12-volt test light connected to ground, check the Wiper Park Switch Sense circuit. Does the test light illuminate brightly? Yes → Go To 3 No → Repair the Wiper Park Switch Sense Circuit for a short to ground condition. Perform BODY VERIFICATION TEST - VER 1.	All

WIPER PARK SWITCH SHORTED TO GROUND — Continued

TEST	ACTION	APPLICABILITY
3	Disconnect the Junction Block harness connector. Disconnect the Wiper Switch connector. Measure the resistance of the Wiper Switch MUX Circuit. Is the resistance below 5.0 ohms? Yes → Replace the Wiper Switch. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Symptom:

***HEADLAMP WASHER INOPERATIVE**

POSSIBLE CAUSES
OPEN GROUND CIRCUIT
FUSED B+ CIRCUIT OPEN
HEADLAMP WASHER RELAY CONTROL CIRCUIT OPEN
HEADLAMP WASHER RELAY OUTPUT CIRCUIT OPEN
HEADLAMP WASHER PUMP MOTOR
HEADLAMP WASHER RELAY
BODY CONTROL MODULE

TEST	ACTION	APPLICABILITY
1	Turn the ignition off. Disconnect the Washer Pump connector. Measure the resistance of the Washer Pump ground circuit. Is the resistance below 5.0 ohms? Yes → Go To 2 No → Repair the open Washer Pump ground circuit. Perform BODY VERIFICATION TEST - VER 1.	All
2	Turn the ignition on. Disconnect the Headlamp Washer Relay. Measure the voltage of the Fused B+ Circuit. Is the voltage above 10.0 volts? Yes → Go To 3 No → Repair the Fused B+ Circuit for an open condition. Perform BODY VERIFICATION TEST - VER 1.	All
3	Turn the ignition off. Disconnect the Headlamp Washer Relay. Disconnect the BCM C3 harness connector. Measure the resistance of the Headlamp Washer Relay Control Circuit. Is the resistance below 5.0 ohms? Yes → Go To 4 No → Repair the Headlamp Washer Relay Control Circuit for a open. Perform BODY VERIFICATION TEST - VER 1.	All
4	Disconnect the Headlamp Washer Relay. Disconnect the Headlamp Washer Pump Motor. Measure the resistance of the Headlamp Washer Relay Output Circuit. Is the resistance below 5.0 ohms? Yes → Go To 5 No → Repair the Headlamp Washer Relay Output Circuit for a open. Perform BODY VERIFICATION TEST - VER 1.	All

*HEADLAMP WASHER INOPERATIVE — Continued

TEST	ACTION	APPLICABILITY
5	Turn the ignition on. Disconnect the Headlamp Washer Pump Motor connector. Actuate the washers. Measure the voltage of the Washer Pump Output Circuit. Is the voltage above 10.0 volts? Yes → Replace the Headlamp Washer Pump Motor. Perform BODY VERIFICATION TEST - VER 1. No → Go To 6	All
6	Turn the ignition off. Install a known good relay in place of the Headlamp Washer Relay. Turn the Washers on. Do the Headlamp Washers operate normally? Yes → Replace the Headlamp Washer Relay. Perform BODY VERIFICATION TEST - VER 1. No → Replace the Body Control Module. Perform BODY VERIFICATION TEST - VER 1.	All

Verification Tests

40/41TE (NGC) TRANSMISSION VERIFICATION TEST - VER 1	APPLICABILITY
1. NOTE: After completion of the Transmission Verification Test, the Powertrain Verification Test must be performed. Refer to the Powertrain Category. 2. Connect the DRBIII® to the Data Link Connector (DLC). 3. Reconnect any disconnected components. 4. With the DRBIII®, erase all Transmission DTC's, also erase the PCM DTC's. 5. Perform *PRNDL FAULT CLEARING PROCEDURE after completion of repairs for P0706 CHECK SHIFTER SIGNAL. 6. With the DRBIII®, display Transmission Temperature. Start and run the engine until the Transmission Temperature is HOT, above 43° C or 110° F. 7. Check the transmission fluid and adjust if necessary. Refer to the Service Information for the Fluid Fill procedure. **8. NOTE: If the Transmission Control Module or Torque Converter has been replaced, or if the Transmission has been repaired or replaced, it is necessary to perform the DRBIII® Quick Learn Procedure and reset the "Pinion Factor".** 9. Road test the vehicle. With the DRBIII®, monitor the engine RPM. Make 15 to 20 1-2, 2-3, 3-4 upshifts. Perform these shifts from a standing start to 45 MPH with a constant throttle opening of 20 to 25 degrees. 10. Below 25 MPH, make 5 to 8 wide open throttle kickdowns to 1st gear. Allow at least 5 seconds each in 2nd and 3rd gear between each kickdown. 11. For a specific DTC, drive the vehicle to the Symptom's When Monitored/When Set conditions to verify the DTC is repaired. 12. If equipped with AutoStick®, upshift and downshift several times using the AutoStick® feature during the road test. **13. NOTE: Use the EATX OBDII task manager to run Good Trip time in each gear, this will confirm the repair and to ensure that the DTC has not re-matured.** 14. Check for Diagnostic Trouble Codes (DTC's) during the road test. If a DTC sets during the road test , return to the Symptom list and perform the appropriate symptom. **15. NOTE: Erase P0700 DTC in the PCM to turn the MIL light off after making transmission repairs.** Were there any Diagnostic Trouble Codes set during the road test? Yes → Repair is not complete, refer to the appropriate symptom. No → Repair is complete.	All

Verification Tests — Continued

41TE TRANSMISSION VERIFICATION TEST - VER 1	APPLICABILITY
1. Connect the DRBIII® to the Data Link Connector (DLC). 2. Reconnect any disconnected components. 3. With the DRBIII®, erase all Transmission DTC's, also erase the PCM DTC's. 4. Perform *PRNDL FAULT CLEARING PROCEDURE after completion of repairs for P0706 CHECK SHIFTER SIGNAL. **5. NOTE: Erase DTC P0700 in the PCM to turn the Malfunction Indicator Lamp (MIL) off after making Transmission repairs.** 6. With the DRBIII®, display Transmission Temperature. Start and run the engine until the Transmission Temperature is HOT - above 43° C or 110° F. 7. Check the Transmission Fluid and adjust if necessary. Refer to the Service information for the Fluid Fill procedure. **8. NOTE: If the Transmission Control Module or the Transmission has been repaired or replaced it is necessary to perform the DRBIII® Quick Learn Procedure and reset the ″Pinion Factor″** 9. Road test the vehicle. With the DRBIII®, monitor the engine RPM. Make 15 to 20 1-2, 2-3, 3-4 upshifts. Perform these shifts from a standing start to 45 MPH with a constant throttle opening of 20 to 25 degrees. 10. Below 25 MPH, make 5 to 8 wide open throttle kickdowns to 1st gear. Allow at least 5 seconds each in 2nd and 3rd gear between each kickdown. 11. For a specific DTC, drive the vehicle to the Symptom's When Monitored/When Set conditions to verify the DTC repair. 12. If equipped with AutoStick®, up-shift and down-shift several times using the AutoStick® feature during the road test. **13. NOTE: Use the EATX OBDII Task Manager to run Good Trip time in each gear, this will confirm the repair and to ensure that the DTC has not re-matured.** 14. Check for Diagnostic Trouble Codes (DTC's) during the road test. If a DTC sets during the road test , return to the Symptom list and perform the appropriate Symptom. Were there any Diagnostic Trouble Codes (DTCs) set during the road test? Yes → Refer to the Symptom List for appropriate Symptom(s). No → Repair is complete.	All

ABS VERIFICATION TEST - VER 1	APPLICABILITY
1. Turn the ignition off. 2. Connect all previously disconnected components and connectors. 3. Ensure all accessories are turned off and the battery is fully charged. 4. Ensure that the Ignition is on, and with the DRBIII, erase all Diagnostic Trouble Codes from ALL modules. Start the engine and allow it to run for 2 minutes and fully operate the system that was malfunctioning. 5. Turn the ignition off and wait 5 seconds. Turn the ignition on and using the DRBIII, read DTC's from ALL modules. 6. If any Diagnostic Trouble Codes are present, return to Symptom list and troubleshoot new or recurring symptom. **7. NOTE: For Sensor Signal and Pump Motor faults, the CAB must sense all 4 wheels at 25 km/h (15 mph) before it will extinguish the ABS Indicator.** 8. If there are no DTC's present after turning ignition on, road test the vehicle for at least 5 minutes. Perform several antilock braking stops. **9. Caution: Ensure braking capability is available before road testing.** 10. Again, with the DRBIII® read DTC's. If any DTC's are present, return to Symptom list. 11. If there are no Diagnostic Trouble Codes (DTC's) present, and the customer's concern can no longer be duplicated, the repair is complete. Are any DTC's present or is the original concern still present? Yes → Repair is not complete, refer to appropriate symptom. No → Repair is complete.	All

Verification Tests — Continued

BODY VERIFICATION TEST - VER 1	APPLICABILITY
1. Disconnect all jumper wires and reconnect all previously disconnected components and connectors. **2. NOTE: If the SKIM or PCM was replaced, refer to the service information for proper programming procedures.** 3. If the Body Control Module was replaced, turn the ignition on for 15 seconds (to allow the new BCM to learn VIN) or engine may not start (if VTSS equipped). If the vehicle is equipped with VTSS, use the DRBIII® and enable VTSS. 4. Program all RKE transmitters and other options as necessary. 5. If any repairs were made to the HVAC System, either disconnect the battery or remove JB Fuse #5 for five minutes, or using the DRBIII®, select Body, Body Computer, Miscellaneous, and Calibrate HVAC Door Motors. 6. Ensure that all accessories are turned off and the battery is fully charged. 7. With the DRBIII®, record and erase all DTC's from ALL modules. Start and run the engine for 2 minutes. Operate all functions of the system that caused the original concern. 8. Turn the ignition off and wait 5 seconds. Turn the ignition on and using the DRBIII®, read DTC's from ALL modules. Are any DTC's present or is the original condition still present? Yes → Repair is not complete, refer to the appropriate symptom. No → Repair is complete.	All

POWERTRAIN VERIFICATION TEST VER - 1	APPLICABILITY
1. NOTE: If the PCM has been replaced and the correct VIN and mileage have not been programmed, a DTC will be set in the ABS Module, Airbag Module and the SKIM. **2. NOTE: If the vehicle is equipped with a Sentry Key Immobilizer System, Secret Key data must be updated. Refer to the Service Information for the PCM, SKIM and the Transponder (ignition key) for programming information.** 3. Inspect the vehicle to ensure that all components related to the repair are connected properly. 4. Inspect the engine oil for fuel contamination. Replace the oil and filter as necessary. 5. Attempt to start the engine. 6. If the No Start condition is still present, refer to the symptom list and perform the diagnostic testing as necessary. refer to any Technical Service Bulletins that may apply. 7. Run the engine for one warm-up cycle to verify operation. 8. With the DRBIII®, confirm that no DTCs or Secondary Indicators are present and that all components are functioning properly. 9. If a DTC is present, refer to the appropriate category and select the corresponding symptom. Are any DTCs present? Yes → Repair is not complete, refer to appropriate symptom. No → Repair is complete.	All

Verification Tests — Continued

SKIS VERIFICATION	APPLICABILITY
1. Reconnect all previously disconnected components and connectors. 2. Obtain the vehicle's unique Personal Identification Number (PIN) assigned to it's original SKIM. This number can be obtained from the vehicle's invoice or Chrysler's Customer Center (1-800-992-1997). **3. NOTE: When entering the PIN, care should be taken because the SKIM will only allow 3 consecutive attempts to enter the correct PIN. If 3 consecutive incorrect PIN's are entered the SKIM will Lock Out the DRB III for 1 hour.** 4. To exit Lock Out mode, the ignition key must remain in the Run position continually for 1 hour. Turn off all accessories and connect a battery charger if necessary. 5. With the DRB III, select Theft Alarm, SKIM and Miscellaneous. Then select desired procedure and follow the steps that will be displayed. 6. If the SKIM has been replaced, ensure all of the vehicle ignition keys are programmed to the new SKIM. **7. NOTE: Prior to returning vehicle to the costumer, perform a module scan to be sure that all DTC's are erased. Erase any DTC's that are found.** 8. With the DRB III erase all DTC's. Perform 5 ignition key cycles leaving the key on for at least 90 seconds per cycle. 9. With the DRB III, read the SKIM DTC's. Are there any SKIM DTC's? Yes → Repair is not complete, refer to appropriate symptom. No → Repair is complete.	All

VTSS VERIFICATION TEST - 1A	APPLICABILITY
1. Ensure all doors and the decklid are closed. 2. Open the driver door. 3. Remove the ignition key (but keep in hand). 4. Lock the doors with RKE transmitter. 5. Close the driver door. 6. - If the VTSS Indicator Lamp flashes rapidly and after approximately 15 seconds changes to a slower flash, the system is operational. 7. - If the indicator fails to flash as described, there is a problem with the system. Select the Identifying VTSS symptom from the Symptom List to troubleshoot. Does the VTSS Indicator Lamp flash as specified? Yes → Repair is complete. No → Repair is not complete, refer to appropriate symptom.	All

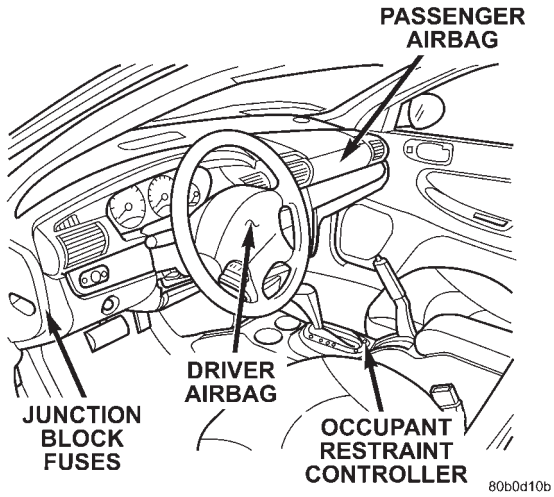
Verification Tests — Continued

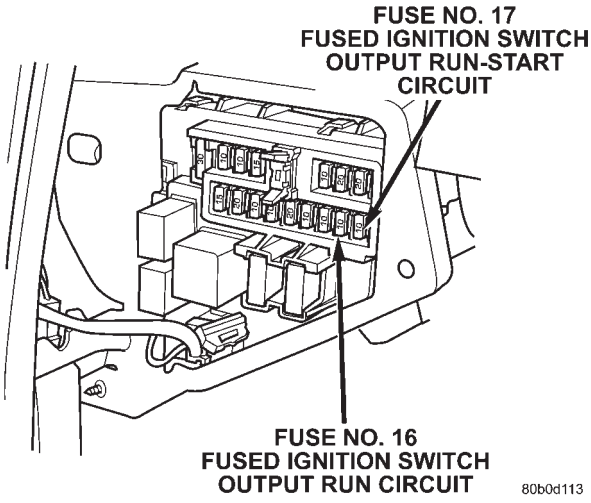
__AIRBAG VERIFICATION TEST - VER 1	APPLICABILITY
1. Remove any special tools or jumper wires and reconnect all previously disconnected components - except the Battery. **2. WARNING: TO AVOID PERSONAL INJURY OR DEATH, TURN THE IGNITION ON, THEN RECONNECT THE BATTERY.** 3. Connect the DRBIII® to the Data Link Connector - use the most current software available. 4. Use the DRBIII® and erase the stored codes in all airbag system modules. 5. Turn the ignition off, and wait 15 seconds, then turn the ignition on. 6. Wait one minute, and read active codes and if there are none present read the stored codes. 7. Note: If equipped with Airbag On - Off switch, read the DTC's in all switch positions. 8. Note: Read the DTC's in all airbag system related modules. 9. If the DRBIII® shows any active or stored codes, return to the Symptom list and follow path specified for that trouble code. If no active or stored codes are present, the repair is complete. Are any DTC's present or is the original condition still present? YES Repair is not complete, refer to appropriate symptom list. NO Repair is complete.	All

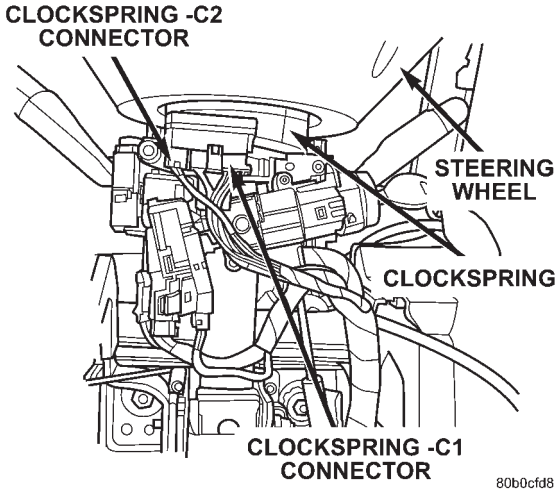
8.0 COMPONENT LOCATIONS

8.1 AIRBAG SYSTEM

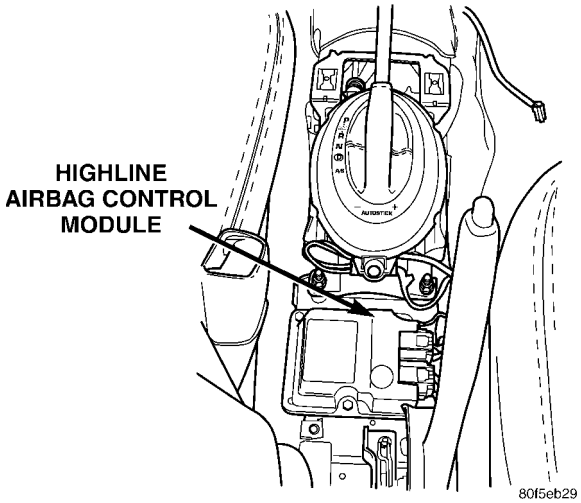
8.1.1 BASE SYSTEM

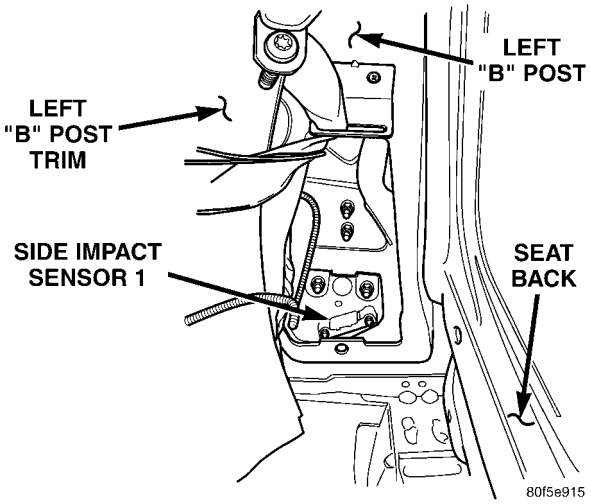






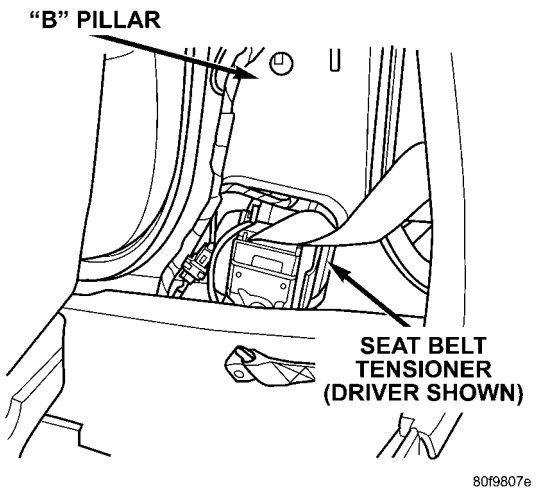
8.1.2 PREMIUM SYSTEM

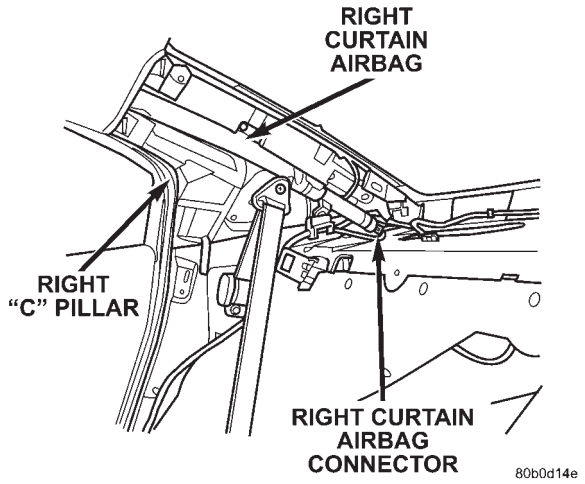




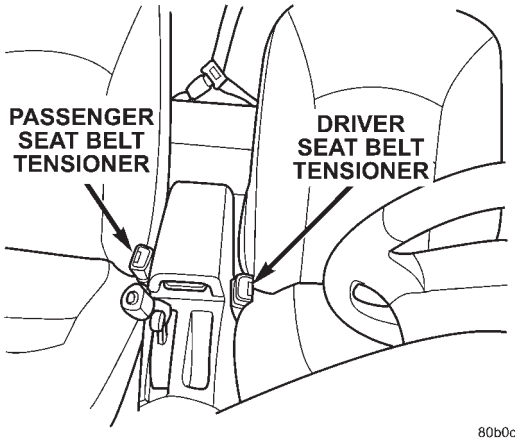
8.1 AIRBAG SYSTEM (Continued)

4-Door Models

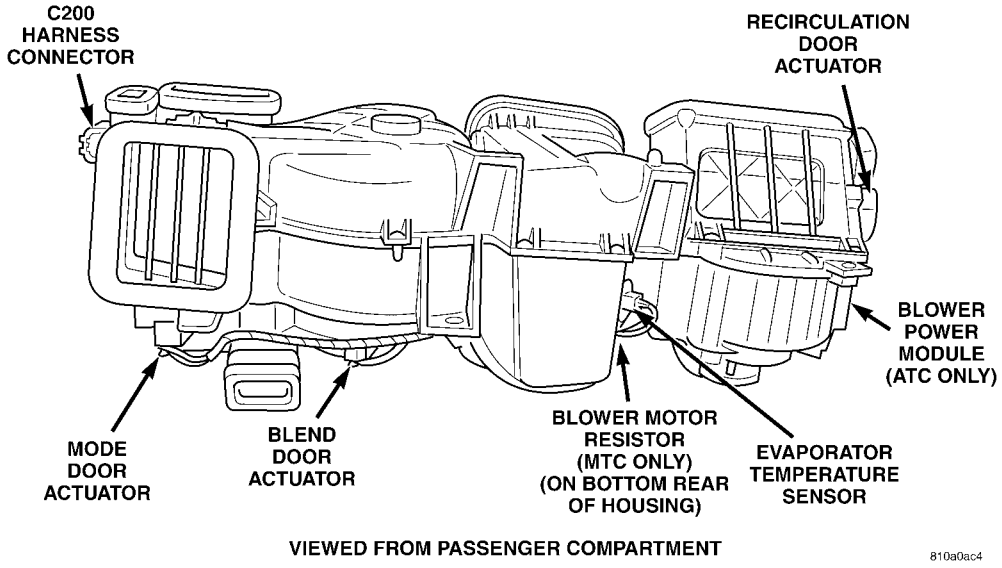




Convertible Models

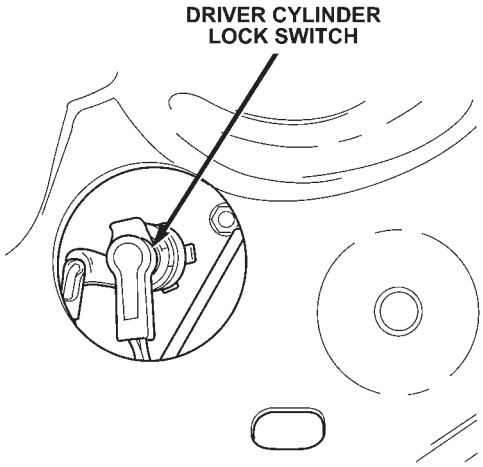


8.2 HVAC UNIT



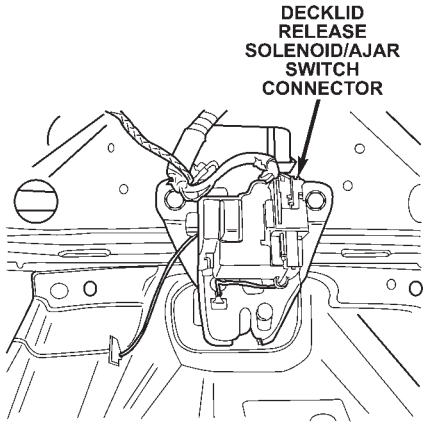
8.3 POWER DOOR LOCKS/RKE

8.3.1 DRIVER CYLINDER LOCK SWITCH



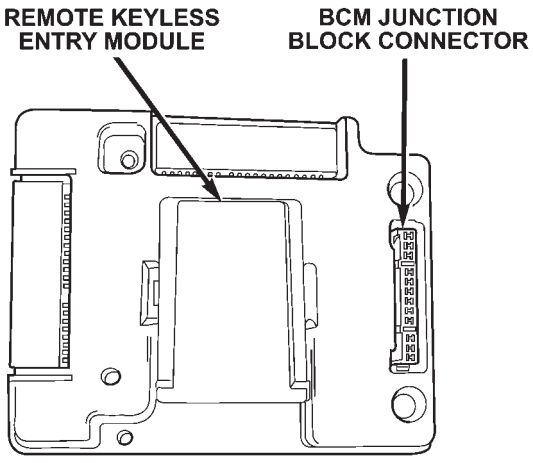
80ae4480

8.3.2 DECKLID RELEASE SOLENOID



80ad9023

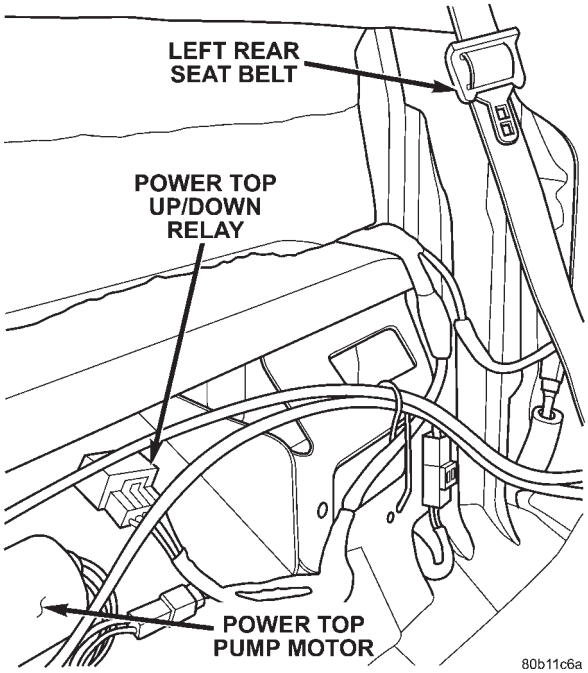
8.3.3 REMOTE KEYLESS ENTRY MODULE



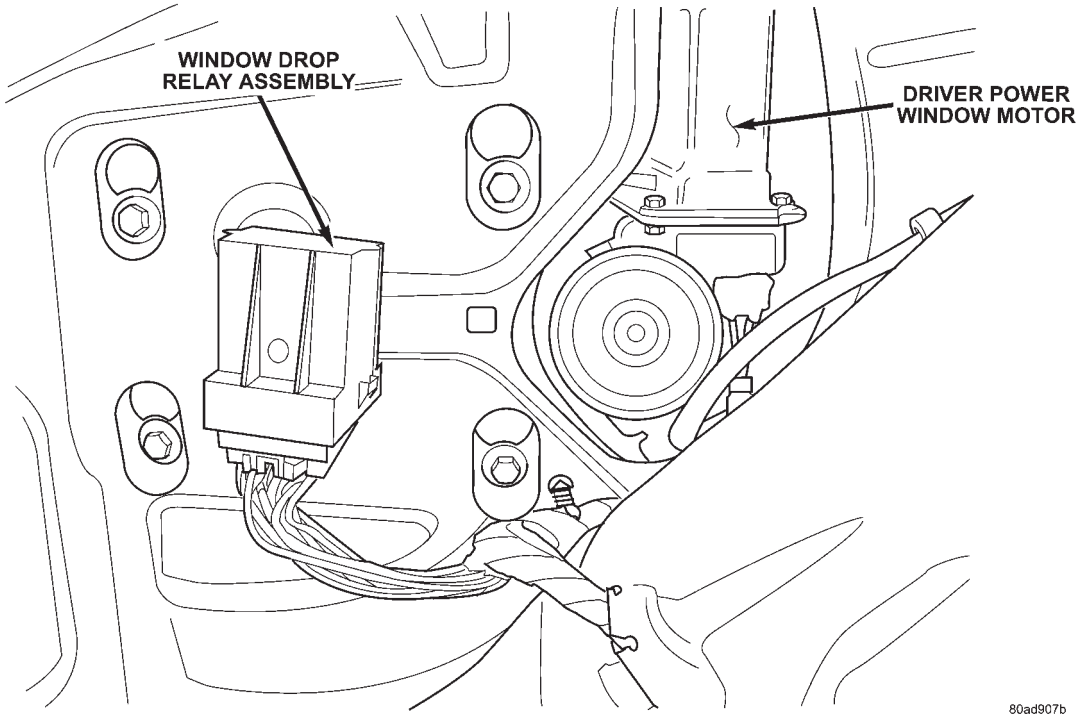
80ae42a9

8.4 POWER TOP

8.4.1 POWER TOP RELAY

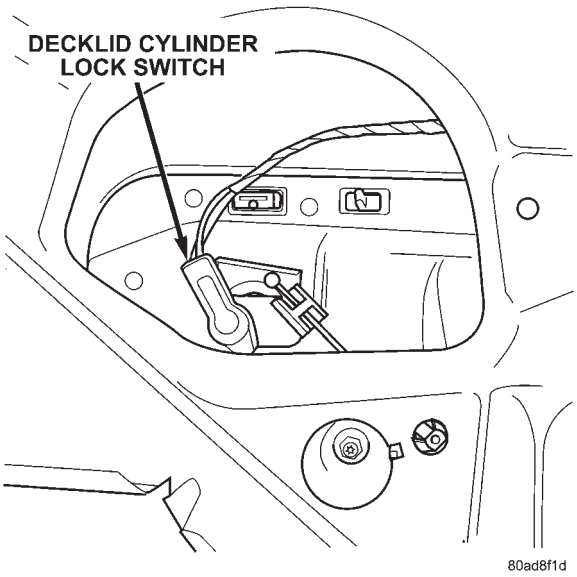


8.4.2 WINDOW DROP RELAY ASSEMBLY



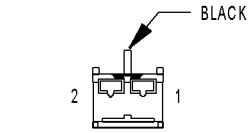
8.5 VEHICLE THEFT SECURITY SYSTEM

8.5.1 DECKLID CYLINDER LOCK SWITCH



NOTES

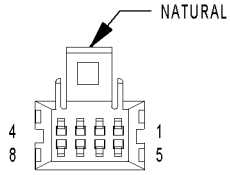
9.0 CONNECTOR PINOUTS



A/C EVAPORATOR TEMPERATURE SENSOR

A/C EVAPORATOR TEMPERATURE SENSOR - BLACK 2 WAY

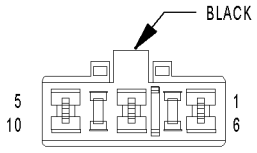
CAV	CIRCUIT	FUNCTION
1	C12 20LG/BK	EVAPORATOR TEMPERATURE SENSOR SIGNAL
2	C57 20DB/GY	SENSOR GROUND



A/C-HEATER CONTROL C1 (MTC)

A/C-HEATER CONTROL C1 (MTC) - NATURAL 8 WAY

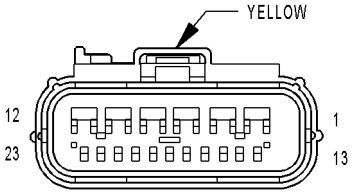
CAV	CIRCUIT	FUNCTION
1	C57 20DB/GY	SENSOR GROUND
2	C16 20LB/YL	FUSED REAR WINDOW DEFOGGER RELAY OUTPUT
3	E17 18YL/BK	DAY BRIGHTNESS SENSE
4	E2 20OR	PANEL LAMPS DRIVER
5	C21 20DB/OR	A/C SWITCH SENSE
6	C58 20RD/TN	A/C MODE SWITCH MUX
7	F11 20RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
8	C82 20YL/OR	TEMPERATURE SELECT SIGNAL



A/C-HEATER CONTROL C2 (MTC)

A/C-HEATER CONTROL C2 (MTC) - BLACK 10 WAY

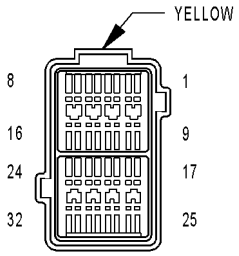
CAV	CIRCUIT	FUNCTION
1	-	-
2	C4 16TN	LOW BLOWER MOTOR DRIVER
3	C6 14LB	M2 BLOWER MOTOR DRIVER
4	-	-
5	Z119 14BK/GY	GROUND
6	-	-
7	C5 16LG	M1 BLOWER MOTOR DRIVER
8	-	-
9	-	-
10	C7 12BK/TN	BLOWER MOTOR DRIVER



AIRBAG CONTROL MODULE (ORC) (BASE)

AIRBAG CONTROL MODULE (ORC) (BASE) - YELLOW 23 WAY

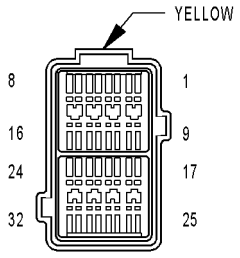
CAV	CIRCUIT	FUNCTION
1	R56 20LB/DG	PASSENGER SEAT BELT TENSIONER LINE 1
2	R54 20LB/YL	PASSENGER SEAT BELT TENSIONER LINE 2
3	R62 20OR/YL	PASSENGER SQUIB 2 LINE 1
4	R64 20TN/YL	PASSENGER SQUIB 2 LINE 2
5	R42 20BK/YL	PASSENGER SQUIB 1 LINE 1
6	R44 20DG/YL	PASSENGER SQUIB 1 LINE 2
7	R55 20LG/DG	DRIVER SEAT BELT TENSIONER LINE 1
8	R53 20LG/YL	DRIVER SEAT BELT TENSIONER LINE 2
9	R61 20OR/LB	DRIVER SQUIB 2 LINE 1
10	R63 20TN/LB	DRIVER SQUIB 2 LINE 2
11	R43 20BK/LB	DRIVER SQUIB 1 LINE 1
12	R45 20DG/LB	DRIVER SQUIB 1 LINE 2
13	-	-
14	F14 20LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN-START)
15	F23 20DB/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
16	Z100 18BK	GROUND
17	-	-
18	-	-
19	-	-
20	-	-
21	D25 20VT/YL (JR27)	PCI BUS
21	D25 20VT (JR41)	PCI BUS
22	-	-
23	-	-



AIRBAG CONTROL MODULE C1 (ORC) (PREMIUM)

AIRBAG CONTROL MODULE C1 (ORC) (PREMIUM) - YELLOW 32 WAY

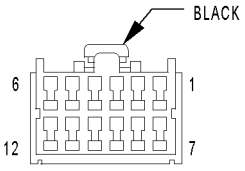
CAV	CIRCUIT	FUNCTION
1	R53 18LG/YL	DRIVER SEAT BELT TENSIONER LINE 2
2	R55 18LG/DG	DRIVER SEAT BELT TENSIONER LINE 1
3	R56 18LB/DG	PASSENGER SEAT BELT TENSIONER LINE 1
4	R54 18LB/YL	PASSENGER SEAT BELT TENSIONER LINE 2
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	R77 20LB/BR	LEFT CURTAIN SQUIB 1 LINE 2
26	R75 20LB/OR	LEFT CURTAIN SQUIB 1 LINE 1
27	R74 20LB/YL	RIGHT CURTAIN SQUIB 1 LINE 1
28	R76 20LB/WT	RIGHT CURTAIN SQUIB 1 LINE 2
29	-	-
30	-	-
31	-	-
32	-	-



AIRBAG CONTROL MODULE C2 (ORC) (PREMIUM)

AIRBAG CONTROL MODULE C2 (ORC) (PREMIUM) - YELLOW 32 WAY

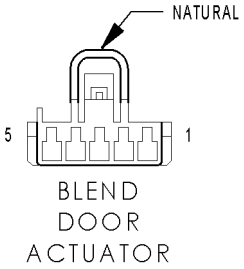
CAV	CIRCUIT	FUNCTION
1	R45 20DG/LB	DRIVER SQUIB 1 LINE 2
2	R43 20BK/LB	DRIVER SQUIB 1 LINE 1
3	R61 20OR/LB	DRIVER SQUIB 2 LINE 1
4	R63 20TN/LB	DRIVER SQUIB 2 LINE 2
5	R44 20DG/YL	PASSENGER SQUIB 1 LINE 2
6	R42 20BK/YL	PASSENGER SQUIB 1 LINE 1
7	R62 20OR/YL	PASSENGER SQUIB 2 LINE 1
8	R64 20TN/YL	PASSENGER SQUIB 2 LINE 2
9	-	-
10	-	-
11	-	-
12	R16 20BR/LG	RIGHT SIDE IMPACT SENSOR 1 GROUND
13	-	-
14	-	-
15	D25 20VT/YL (JR27)	PCI BUS
15	D25 20VT (JR41)	PCI BUS
16	F14 20LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN-START)
17	-	-
18	-	-
19	-	-
20	R15 20LG/BR	LEFT SIDE IMPACT SENSOR 1 GROUND
21	-	-
22	Z100 20BK	GROUND
23	-	-
24	F23 20DB/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
25	R13 20LG/TN	LEFT SIDE IMPACT SENSOR 1 SIGNAL
26	R14 20TN/LG	RIGHT SIDE IMPACT SENSOR 1 SIGNAL
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-



AUTOMATIC TEMPERATURE CONTROL HEAD

AUTOMATIC TEMPERATURE CONTROL HEAD - BLACK 12 WAY

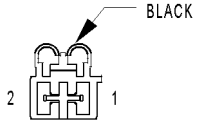
CAV	CIRCUIT	FUNCTION
1	Z116 20BK	GROUND
2	D25 20VT/LG	PCI BUS
3	Z117 20BK	GROUND
4	E2 20OR	PANEL LAMPS DRIVER
5	-	-
6	-	-
7	C10 20RD/TN	IN-CAR TEMPERATURE SENSOR SIGNAL
8	C57 20DB/GY	SENSOR GROUND
9	-	-
10	F20 20WT/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
11	C9 20RD/TN (JR27)	ASPIRATOR MOTOR DRIVER
11	C9 20YL/DG (JR41)	ASPIRATOR MOTOR DRIVER
12	M1 20PK	FUSED B(+)



BLEND DOOR ACTUATOR

BLEND DOOR ACTUATOR - NATURAL 5 WAY

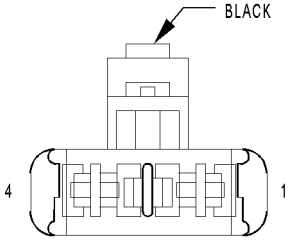
CAV	CIRCUIT	FUNCTION
1	C33 20DB/RD	BLEND AIR DOOR DRIVER
2	C57 20DB/GY	SENSOR GROUND
3	C36 20RD/WT	BLEND DOOR FEEDBACK SIGNAL
4	C26 20PK/DB	5 VOLT SUPPLY
5	C34 20DB/WT	COMMON DOOR DRIVER



BLOWER MOTOR

BLOWER MOTOR - BLACK 2 WAY

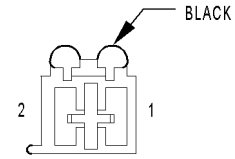
CAV	CIRCUIT	FUNCTION
1	C72 12GY (ATC)	BLOWER MOTOR SUPPLY
1	C7 12BK (MTC)	BLOWER MOTOR DRIVER
2	C71 12DB (ATC)	BLOWER MOTOR GROUND
2	C1 12DG (MTC)	FUSED IGNITION SWITCH OUTPUT (RUN)



BLOWER MOTOR POWER MODULE C1 (ATC)

BLOWER MOTOR POWER MODULE C1 (ATC) - BLACK 4 WAY

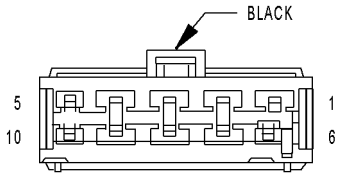
CAV	CIRCUIT	FUNCTION
1	C1 12DG	FUSED IGNITION SWITCH OUTPUT (RUN)
2	C56 20RD/LG	BLOWER MOTOR CONTROL
3	C7 20BK/TN	BLOWER SPEED SENSE
4	Z118 12BK	GROUND



BLOWER MOTOR POWER MODULE C2 (ATC)

BLOWER MOTOR POWER MODULE C2 (ATC) - BLACK 2 WAY

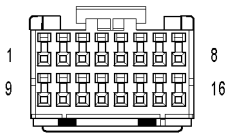
CAV	CIRCUIT	FUNCTION
1	C72 12GY	BLOWER MOTOR SUPPLY
2	C71 12DB	BLOWER MOTOR GROUND



BLOWER MOTOR RESISTOR BLOCK (MTC)

BLOWER MOTOR RESISTOR BLOCK (MTC) - BLACK 10 WAY

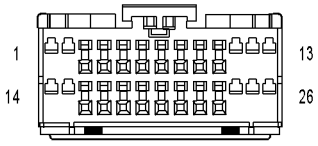
CAV	CIRCUIT	FUNCTION
1	C7 12BK	BLOWER MOTOR DRIVER
2	C7 12BK/TN	HIGH BLOWER MOTOR DRIVER
3	C6 16LB	M2 BLOWER MOTOR DRIVER
4	C5 14LG	M1 BLOWER MOTOR DRIVER
5	C4 14TN	LOW BLOWER MOTOR DRIVER
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-



BODY CONTROL MODULE C1

BODY CONTROL MODULE C1 - 16 WAY

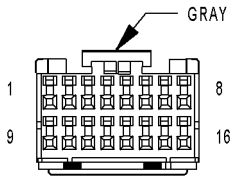
CAV	CIRCUIT	FUNCTION
1	E19 20RD	PANEL LAMPS DRIVER
2	X3 20BK/RD	HORN/RADIO CONTROL MUX
3	G69 20BK/OR	VTSS INDICATOR DRIVER
4	G26 20LB	KEY-IN IGNITION SWITCH SENSE
5	L177 20WT/OR (PREMIUM)	PARK LAMP RELAY CONTROL
6	P58 20WT (EXPORT)	RKE EXTERNAL ANTENNA
7	P158 20BK (EXPORT)	RKE EXTERNAL ANTENNA
8	C10 20RD/TN (ATC)	IN-CAR TEMPERATURE SENSOR SIGNAL
9	C38 20DB (ATC)	SUN SENSOR SIGNAL
10	D6 20PK/LB (2.0L/2.4L EATX EARLY BUILD)	SCI RECEIVE (TCM)
10	D6 20PK/LB (2.7L EATX EARLY BUILD)	SCI RECEIVE
10	D6 20PK/LB (EATX LATE BUILD)	SCI RECEIVE (TCM)
11	C56 20RD/LG (ATC)	BLOWER MOTOR CONTROL
12	A31 18BK/LB	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
13	Z380 18BK/DG (EXCEPT BASE)	GROUND
14	E17 18YL/BK (EXCEPT EXPORT)	DAY BRIGHTNESS SENSE
15	L124 20WT/DB (PREMIUM)	AUTO HEADLAMP RELAY CONTROL
16	C9 20RD/TN (JR27 PREMIUM)	ASPIRATOR MOTOR DRIVER
16	C9 20YL/DG (JR41 PREMIUM)	ASPIRATOR MOTOR DRIVER



BODY CONTROL MODULE C2

BODY CONTROL MODULE C2 - 26 WAY

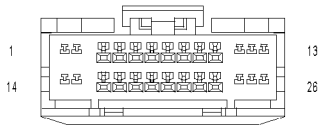
CAV	CIRCUIT	FUNCTION
1	C26 20PK/DB	5 VOLT SUPPLY
2	Z132 16BK/GY (BASE EARLY BUILD)	GROUND
2	Z132 16BK/GY (LATE BUILD)	GROUND
2	Z999 16BK/GY (PREMIUM EARLY BUILD)	GROUND
3	P1 20BK/WT	DECKLID RELEASE SWITCH SENSE
4	V52 20DG/RD	FRONT WIPER SWITCH MUX
5	C7 18BK/TN (ATC)	BLOWER SPEED SENSE
5	C7 12BK/TN (MTC EARLY BUILD)	BLOWER MOTOR DRIVER
5	C7 18BK/TN (MTC LATE BUILD)	BLOWER MOTOR DRIVER
6	C21 20DB/OR (BASE)	A/C SWITCH SENSE
7	C37 20YL	MODE DOOR FEEDBACK SIGNAL
8	C36 18RD/WT	BLEND DOOR FEEDBACK SIGNAL
9	C12 20LG/BK	EVAPORATOR TEMPERATURE SENSOR SIGNAL
10	C57 20DB/GY	SENSOR GROUND
11	E2 18OR/BR	PANEL LAMPS DRIVER
12	E2 20OR	PANEL LAMPS DRIVER
13	-	-
14	C82 20YL/OR (BASE)	TEMPERATURE SELECT SIGNAL
15	C34 20DB/WT	COMMON DOOR DRIVER
16	D25 20VT/YL	PCI BUS (RADIO)
17	D25 20VT/YL (JR27)	PCI BUS (AIRBAG)
17	D25 20VT (JR41)	PCI BUS (AIRBAG)
18	D25 20VT/PK (EXCEPT JR41 BASE)	PCI BUS (SKIM)
19	D25 20VT/OR	PCI BUS (MIC)
20	D25 20VT/YL	PCI BUS (DLC)
21	D25 20VT/LG (JR27)	PCI BUS (ATC)
21	D25 18VT/LG (JR41 EARLY BUILD)	PCI BUS (ATC)
21	D25 20VT/LG (JR41 LATE BUILD)	PCI BUS (ATC)
22	E2 20OR	PANEL LAMPS DRIVER
23	C58 20RD/TN (BASE/ EXPORT)	A/C MODE SWITCH MUX
23	L109 20WT (PREMIUM)	FUSED IGNITION SWITCH OUTPUT
24	C32 20GY/DB	RECIRCULATION DOOR DRIVER
25	C33 20DB/RD	BLEND AIR DOOR DRIVER
26	C35 20DG/YL	MODE DOOR DRIVER



BODY CONTROL MODULE C3

BODY CONTROL MODULE C3 - GRAY 16 WAY

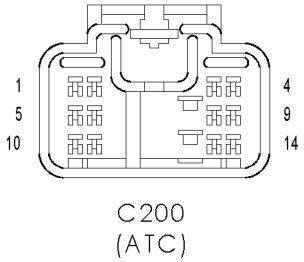
CAV	CIRCUIT	FUNCTION
1	D25 20OR (2.0L/2.4L EARLY BUILD)	PCI BUS (PCM)
1	D25 20OR (2.7L EARLY BUILD)	PCI BUS
1	D25 20OR (LATE BUILD)	PCI BUS (PCM)
2	D25 18YL/VT	PCI BUS (ABS)
3	D25 20VT/YL (2.0L/2.4L EATX EARLY BUILD)	PCI BUS (PCM)
3	D25 20VT/YL (2.7L EATX EARLY BUILD)	PCI BUS
3	D25 20VT/YL (EATX LATE BUILD)	PCI BUS (PCM)
4	V55 20TN/RD	FRONT WIPER PARK SWITCH SENSE
5	V14 20RD/VT	FRONT WIPER ON/OFF RELAY CONTROL
6	V16 20VT/PK	FRONT WIPER HIGH/LOW RELAY CONTROL
7	-	-
8	-	-
9	V58 18BR/YL (HEADLAMP WASHER)	HEADLAMP WASHER RELAY CONTROL
10	V10 18BR	FRONT WASHER PUMP MOTOR CONTROL
11	-	-
12	-	-
13	Z132 18BK	GROUND
14	-	-
15	-	-
16	P340 18LG/YL (HEATED SEAT)	HEATED SEAT RELAY CONTROL



BODY CONTROL MODULE C4

BODY CONTROL MODULE C4 - 26 WAY

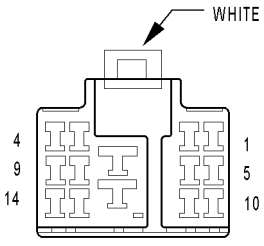
CAV	CIRCUIT	FUNCTION
1	P2 20BK/WT	DECKLID RELEASE SOLENOID DRIVER
2	Q37 20OR/WT (JR27)	WINDOW DROP RELAY CONTROL
3	-	-
4	G73 20LG/OR (VTSS)	DRIVER CYLINDER LOCK SWITCH MUX
5	G75 20TN	DRIVER DOOR AJAR SWITCH SENSE
6	G74 20TN/RD	PASSENGER DOOR AJAR SWITCH SENSE
7	G77 20TN/OR (JR41)	LEFT REAR DOOR AJAR SWITCH SENSE
8	G76 20TN/YL (JR41)	RIGHT REAR DOOR AJAR SWITCH SENSE
9	P175 20OR/BK	DRIVER LOCK RELAY OUTPUT
10	P179 20OR/BR (JR41)	LEFT REAR LOCK RELAY OUTPUT
11	P180 20OR/TN (JR41)	RIGHT REAR LOCK RELAY OUTPUT
12	P176 20PK/BK	PASSENGER LOCK RELAY OUTPUT
13	P177 20DB/WT	DRIVER UNLOCK RELAY OUTPUT
14	G38 18GY (JR27)	GARAGE DOOR OPENER ENABLE
15	P97 20WT/DG	DRIVER DOOR SWITCH MUX
16	P96 20WT/LG	PASSENGER DOOR SWITCH MUX
17	Q31 20WT/BK (JR27)	CONVERTIBLE TOP SWITCH MUX
18	G78 18TN/BK	DECKLID AJAR SWITCH SENSE
19	E2 20OR	PANEL LAMPS DRIVER
20	P6 20RD/WT (JR27)	TOP UP RELAY CONTROL
21	G71 20VT/YL (VTSS)	DECKLID SECURITY SWITCH SENSE
22	G4 20DB	FUEL LEVEL SENSOR SIGNAL
23	P5 20 YL/BK (JR27)	TOP DOWN RELAY CONTROL
24	P182 20PK/DB (JR41)	RIGHT REAR UNLOCK RELAY OUTPUT
25	P178 20PK/LB	PASSENGER UNLOCK RELAY OUTPUT
26	P181 20PK/BK (JR41)	LEFT REAR UNLOCK RELAY OUTPUT



C200
(ATC)

C200 (ATC) - (HVAC SIDE)

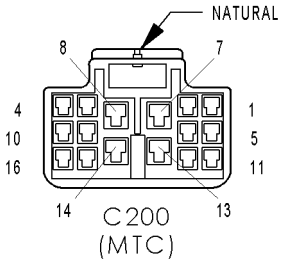
CAV	CIRCUIT
1	C34 20DB/WT
2	C35 20DG/YL
3	C33 20DB/RD
4	C32 20GY/DB
5	C57 20DB/GY
6	C26 20PK/DB
7	C1 12DG
8	C7 20BK/TN
9	C12 20LG/BK
10	C36 20RD/WT
11	C37 20YL
12	Z118 12BK
13	C56 20RD/LG
14	-



C200
(ATC)

C200 (ATC) - WHITE (INSTRUMENT PANEL SIDE)

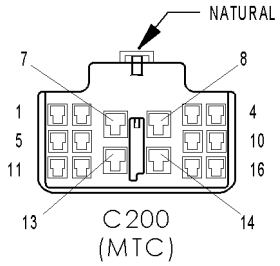
CAV	CIRCUIT
1	C34 20DB/WT
2	C35 20DG/YL
3	C33 20DB/RD
4	C32 20GY/DB
5	C57 20DB/YL
6	C26 20PK/DB
7	C1 14DG
8	C7 18BK/TN
9	C12 20LG/BK
10	C36 18RD/WT
11	C37 20YL
12	Z118 12BK
13	C56 20RD/LG
14	-



C200
(MTC)

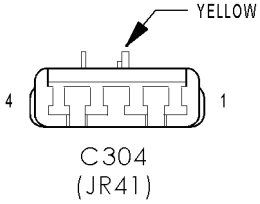
C200 (MTC) - NATURAL (HVAC SIDE)

CAV	CIRCUIT
1	C34 20DB/WT
2	C35 20DG/YL
3	C33 20DB/RD
4	C4 14TN
5	C57 20DB/GY
6	C26 20PK/DB
7	C7 12BK/TN
8	C1 12DG
9	C12 20LG/BK
10	C36 20RD/WT
11	C37 20YL
12	C5 14LG
13	-
14	-
15	C6 16LB
16	C32 20GY/DB



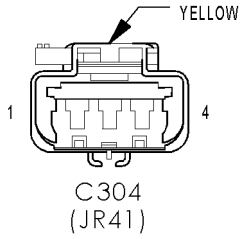
C200 (MTC) - NATURAL (INSTRUMENT PANEL SIDE)

CAV	CIRCUIT
1	C34 20DB/WT
2	C35 20DG/YL
3	C33 20DB/RD
4	C4 16TN
5	C57 20DB/YL
6	C26 20PK/DB
7	C7 14BK/TN
8	C1 14DG
9	C12 20LG/BK
10	C36 18RD/WT
11	C37 20YL
12	C5 16LG
13	-
14	-
15	C6 14LB
16	C32 20GY/DB



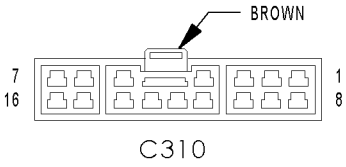
C304 (JR41) - YELLOW (INSTRUMENT PANEL SIDE)

CAV	CIRCUIT
1	R53 20LG/YL (EXCEPT SIDE AIR BAG)
1	R13 20LG/TN (SIDE AIR BAG)
2	R55 20LG/DG (EXCEPT SIDE AIR BAG)
2	R15 20LG/BR (SIDE AIR BAG)
3	R54 20LB/YL (EXCEPT SIDE AIR BAG)
3	R14 20TN/LG (SIDE AIR BAG)
4	R56 20LB/DG (EXCEPT SIDE AIR BAG)
4	R16 20BR/LG (SIDE AIR BAG)



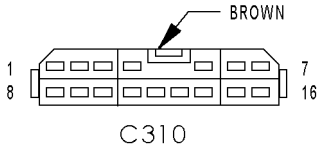
C304 (JR41) - YELLOW (UNIBODY SIDE)

CAV	CIRCUIT
1	R53 18LG/YL (EXCEPT SIDE AIR BAG)
1	R13 20LG/TN (SIDE AIR BAG)
2	R55 18LG/DG (EXCEPT SIDE AIR BAG)
2	R15 20LG/BR (SIDE AIR BAG)
3	R54 18LB/YL (EXCEPT SIDE AIR BAG)
3	R14 20TN/LG (SIDE AIR BAG)
4	R56 18LB/DG (EXCEPT SIDE AIR BAG)
4	R16 20BK/LG (SIDE AIR BAG)



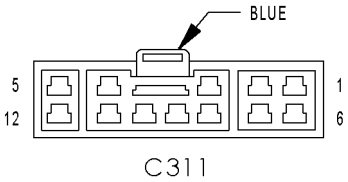
C310 - BROWN (INSTRUMENT PANEL SIDE)

CAV	CIRCUIT
1	-
2	M1 20PK
3	P97 20WT/DG
4	P91 22WT/BK
5	P95 22DB
6	-
7	Q16 14BR/WT
8	Q14 14GY (JR27)
8	Q18 14GY/BK (JR41)
9	Q37 20OR/WT (JR27)
10	P175 20OR/BK
11	P177 20DB/WT
12	P93 22YL/BK
13	G75 20TN/RD (JR27)
13	G75 20TN (JR41)
14	-
15	-
16	-



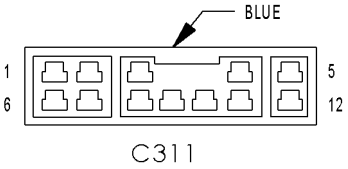
C310 - BROWN (LEFT FRONT DOOR SIDE)

CAV	CIRCUIT
1	-
2	M1 20PK
3	P97 20WT/DG
4	P91 22WT/BK
4	P91 22WT/BK (JR27 PREMIUM)
5	P95 22DB/WT (EARLY BUILD)
5	P95 22DB (LATE BUILD)
6	-
7	Q16 14BR/WT
8	Q14 14GY (JR27)
8	Q18 14GY/BK (JR41)
9	Q37 20OR/WT (JR27)
10	P175 20OR/BK
11	P177 20DB/WT
12	P93 22YL/BK
13	G75 20TN
14	-
15	-
16	-



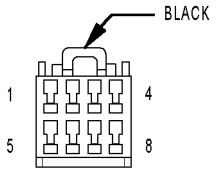
C311 - BLUE (INSTRUMENT PANEL SIDE)

CAV	CIRCUIT
1	Q1 14YL (JR41)
2	Q23 14RD/WT (JR27)
2	Q27 14RD/BK (JR41)
3	Q13 14DB (JR27)
3	Q17 14DB/WT (JR41)
4	F21 14TN
5	Q26 14VT/WT
6	Z314 14BK/TN (JR27)
6	Z243 14BK/TN (JR41)
7	Q24 14DG (JR27)
7	Q28 14DG/WT (JR41)
8	X55 20BR/RD (BASE)
8	X55 20BR/RD (JR27 BASE LATE BUILD)
8	X85 18LG/BK (JR27 PREMIUM EARLY BUILD)
8	X85 18LG/DG (JR27 PREMIUM LATE BUILD)
8	X85 18LG/DG (JR41 PREMIUM)
9	X53 20DG (BASE)
9	X53 20DG (JR27 BASE LATE BUILD)
9	X87 18LG/VT (PREMIUM)
10	G73 20LG/OR (VTSS)
11	F20 20WT/YL (JR27 EXCEPT ATC)
11	F20 20WT/YL (JR27)
12	C16 20LB/YL (POWER MIRROR)



C311 - BLUE (LEFT FRONT DOOR SIDE)

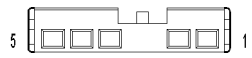
CAV	CIRCUIT
1	Q1 14YL (JR41)
2	Q27 14RD/BK (JR27 EARLY BUILD)
2	Q23 14RD/WT (JR27 LATE BUILD)
3	Q17 14DB/WT (EXCEPT JR27 LATE BUILD)
3	Q13 14DB (JR27 LATE BUILD)
4	F21 14TN
5	Q26 14VT/WT
6	Z314 14BK (JR27)
6	Z243 14BK (JR41)
7	Q28 14DG/WT (EXCEPT JR27 LATE BUILD)
7	Q24 14DG (JR27 LATE BUILD)
8	X85 18LG/DG
9	X87 18LG/VT
10	G73 20LG/OR (VTSS)
11	F20 20WT (JR27 EARLY BUILD)
11	F20 20WT/YL (JR27 LATE BUILD)
12	C16 20LB/YL (EXCEPT JR41 BASE)



CD
CHANGER

CD CHANGER - BLACK 8 WAY

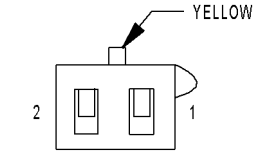
CAV	CIRCUIT	FUNCTION
1	X40 22GY/WT	AUDIO OUT RIGHT
2	E14 22OR/TN	PANEL LAMPS DIMMER SIGNAL
3	D25 22VT/YL	PCI BUS
4	X112 22RD	IGNITION SWITCH OUTPUT (RUN-ACC)
5	X41 22DG/WT	AUDIO OUT LEFT
6	Z4 22BK/OR	GROUND
7	Z140 22BK/TN	GROUND
8	X160 22GY/YL	B(+)



CLOCKSPRING C1

CLOCKSPRING C1 - 5 WAY

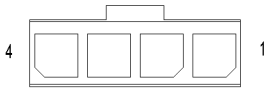
CAV	CIRCUIT	FUNCTION
1	V37 20RD/LG (2.0L/2.4L EARLY BUILD)	S/C SWITCH SIGNAL
1	V37 20RD/LG (2.7L EARLY BUILD)	SPEED CONTROL SWITCH SIGNAL
1	V37 20RD/LG (LATE BUILD)	S/C SWITCH SIGNAL
2	Z123 20BK/OR	GROUND
3	X3 20BK/RD	HORN/RADIO CONTROL MUX
4	R63 20TN/LB	DRIVER SQUIB 2 LINE 2
5	R61 20OR/LB	DRIVER SQUIB 2 LINE 1



CLOCKSPRING C2

CLOCKSPRING C2 - YELLOW 2 WAY

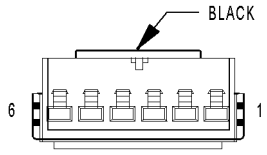
CAV	CIRCUIT	FUNCTION
1	R43 20BK/LB	DRIVER SQUIB 1 LINE 1
2	R45 20DG/LB	DRIVER SQUIB 1 LINE 2



CLOCKSPRING
C3

CLOCKSPRING C3 - 4 WAY

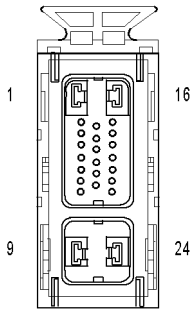
CAV	CIRCUIT	FUNCTION
1	V37 22RD/LG (2.0L/2.4L EARLY BUILD)	S/C SWITCH SIGNAL
1	V37 22RD/LG (2.7L EARLY BUILD)	SPEED CONTROL SWITCH SIGNAL
1	V37 22RD/LG (LATE BUILD)	S/C SWITCH SIGNAL
2	Z123 22BK/LB	GROUND
3	Z123 22BK/OR	GROUND
4	X3 22BK/RD	HORN/RADIO CONTROL MUX



COMPASS/
MINI-TRIP
COMPUTER

COMPASS/MINI-TRIP COMPUTER - BLACK 6 WAY

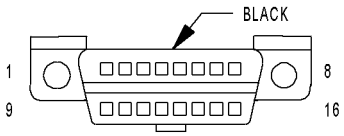
CAV	CIRCUIT	FUNCTION
1	-	-
2	D25 20VT/RD	PCI BUS
3	M1 20PK	FUSED B(+)
4	Z104 20BK	GROUND
5	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
6	-	-



CONTROLLER ANTILOCK BRAKE

CONTROLLER ANTILOCK BRAKE - 24 WAY

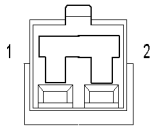
CAV	CIRCUIT	FUNCTION
1	Z101 12BK	GROUND
2	B1 18YL/DB (EARLY BUILD)	RIGHT REAR WHEEL SPEED SENSOR SIGNAL
2	B1 20YL/DB (LATE BUILD)	RIGHT REAR WHEEL SPEED SENSOR SIGNAL
3	B2 20YL	RIGHT REAR WHEEL SPEED SENSOR 12 VOLT SUPPLY
4	-	-
5	D25 18YL/VT	PCI BUS
6	B6 20WT/DB	RIGHT FRONT WHEEL SPEED SENSOR SIGNAL
7	B7 20WT	RIGHT FRONT WHEEL SPEED SENSOR 12 VOLT SUPPLY
8	-	-
9	A20 12RD/DB	FUSED B(+)
10	F20 18WT	FUSED IGNITION SWITCH OUTPUT (RUN)
11	-	-
12	-	-
13	G7 18WT/OR (2.7L MTX EARLY BUILD)	VEHICLE SPEED SENSOR SIGNAL
14	-	-
15	-	-
16	Z102 12BK	GROUND
17	-	-
18	L50 20WT/TN	BRAKE LAMP SWITCH OUTPUT
19	B3 20LG/DB	LEFT REAR WHEEL SPEED SENSOR SIGNAL
20	B4 20LG	LEFT REAR WHEEL SPEED SENSOR 12 VOLT SUPPLY
21	-	-
22	B8 18RD/DB	LEFT FRONT WHEEL SPEED SENSOR SIGNAL
23	B9 20RD	LEFT FRONT WHEEL SPEED SENSOR 12 VOLT SUPPLY
24	A10 12RD/DG	FUSED B(+)



DATA LINK CONNECTOR

DATA LINK CONNECTOR - BLACK 16 WAY

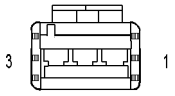
CAV	CIRCUIT	FUNCTION
1	-	-
2	D25 20VT/YL	PCI BUS (DLC)
3	-	-
4	Z305 20BK/YL	GROUND
5	Z306 20BK/VT	GROUND
6	-	-
7	D21 20PK	SCI TRANSMIT
8	F11 20RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
9	D6 20PK/LB (2.0L/2.4L EATX EARLY BUILD)	SCI RECEIVE (TCM)
9	D6 20PK/LB (2.7L EATX EARLY BUILD)	SCI RECEIVE
9	D6 20PK/LB (LATE BUILD)	SCI RECEIVE (TCM)
10	-	-
11	-	-
12	D20 20LG	SCI RECEIVE
13	-	-
14	-	-
15	D15 20WT/DG	SCI TRANSMIT (TCM)
16	M1 20PK	FUSED B(+)



DECKLID CYLINDER LOCK SWITCH (VTSS)

DECKLID CYLINDER LOCK SWITCH (VTSS) - 2 WAY

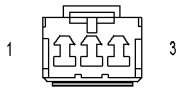
CAV	CIRCUIT	FUNCTION
1	Z236 20BK	GROUND
2	G71 20VT/YL	DECKLID SECURITY SWITCH SENSE



DECKLID RELEASE SOLENOID/AJAR SWITCH (JR27 EARLY BUILD/JR41 EXPORT EARLY BUILD)

DECKLID RELEASE SOLENOID/AJAR SWITCH (JR27 EARLY BUILD/JR41 EXPORT EARLY BUILD) - 3 WAY

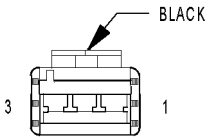
CAV	CIRCUIT	FUNCTION
1	Z217 20BK (JR27)	GROUND
1	Z217 20BK/VT (JR41)	GROUND
2	G78 18TN/BK	DECKLID AJAR SWITCH SENSE
2	G78 18TN/BK	DECKLID AJAR SWITCH SENSE
3	P2 20BK/WT	DECKLID RELEASE SOLENOID DRIVER



DECKLID RELEASE SOLENOID/AJAR SWITCH (JR41 EXCEPT EXPORT EARLY BUILD)

DECKLID RELEASE SOLENOID/AJAR SWITCH (JR41 EXCEPT EXPORT EARLY BUILD) - 3 WAY

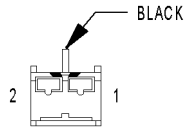
CAV	CIRCUIT	FUNCTION
1	P2 20BK/WT	DECKLID RELEASE SOLENOID DRIVER
2	Z217 20BK/VT	GROUND
3	G78 18TN/BK	DECKLID AJAR SWITCH SENSE



DECKLID RELEASE SOLENOID/AJAR SWITCH (LATE BUILD)

DECKLID RELEASE SOLENOID/AJAR SWITCH (LATE BUILD) - BLACK 3 WAY

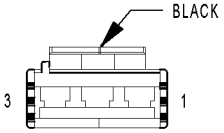
CAV	CIRCUIT	FUNCTION
1	Z217 20BK (JR27)	GROUND
1	Z217 20BK/VT (JR41)	GROUND
2	G78 18TN/BK	DECKLID AJAR SWITCH SENSE
2	G78 18TN/BK	DECKLID AJAR SWITCH SENSE
3	P2 20BK/WT	DECKLID RELEASE SOLENOID DRIVER



DECKLID RELEASE SWITCH

DECKLID RELEASE SWITCH - BLACK 2 WAY

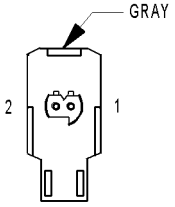
CAV	CIRCUIT	FUNCTION
1	P1 20BK/WT	DECKLID RELEASE SWITCH SENSE
2	Z223 20BK/DB	GROUND



DOME LAMP (JR41)

DOME LAMP (JR41) - BLACK 3 WAY

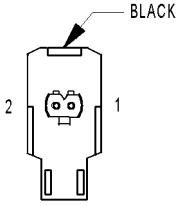
CAV	CIRCUIT	FUNCTION
1	-	-
2	M1 20PK	FUSED B(+)
3	M2 20YL	COURTESY LAMPS DRIVER
3	M2 20YL (PREMIUM)	COURTESY LAMPS DRIVER



DRIVER AIRBAG SQUIB 1

DRIVER AIRBAG SQUIB 1 - GRAY 2 WAY

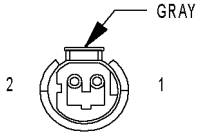
CAV	CIRCUIT	FUNCTION
1	R45 20DG/LB	DRIVER SQUIB 1 LINE 2
2	R43 20BK/LB	DRIVER SQUIB 1 LINE 1



DRIVER AIRBAG SQUIB 2

DRIVER AIRBAG SQUIB 2 - BLACK 2 WAY

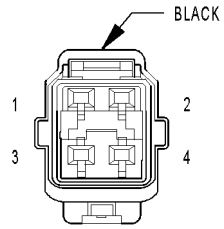
CAV	CIRCUIT	FUNCTION
1	R63 20DG/LB	DRIVER SQUIB 2 LINE 2
2	R61 20BK/LB	DRIVER SQUIB 2 LINE 1



DRIVER CYLINDER LOCK SWITCH (VTSS)

DRIVER CYLINDER LOCK SWITCH (VTSS) - GRAY 2 WAY

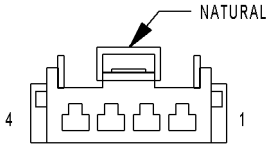
CAV	CIRCUIT	FUNCTION
1	G73 20LG/OR	DRIVER CYLINDER LOCK SWITCH MUX
2	M1 20PK	FUSED B(+)



DRIVER DOOR LOCK MOTOR/ AJAR SWITCH

DRIVER DOOR LOCK MOTOR/AJAR SWITCH - BLACK 4 WAY

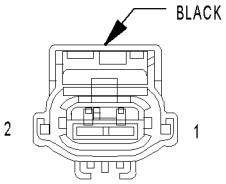
CAV	CIRCUIT	FUNCTION
1	G75 20TN	DRIVER DOOR AJAR SWITCH SENSE
2	Z314 20BK (JR27)	GROUND
2	Z243 20BK (JR41)	GROUND
3	P177 20DB/WT	DRIVER UNLOCK RELAY OUTPUT
4	P175 20OR/BK	DRIVER LOCK RELAY OUTPUT



DRIVER DOOR LOCK SWITCH

DRIVER DOOR LOCK SWITCH - NATURAL 4 WAY

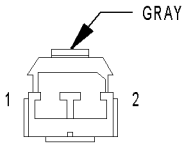
CAV	CIRCUIT	FUNCTION
1	M1 20PK	FUSED B(+)
2	-	-
3	Z314 20BK (EARLY BUILD)	GROUND
3	Z243 20BK (LATE BUILD)	GROUND
4	P97 20WT/DG	DRIVER DOOR SWITCH MUX



DRIVER POWER WINDOW MOTOR (JR27)

DRIVER POWER WINDOW MOTOR (JR27) - BLACK 2 WAY

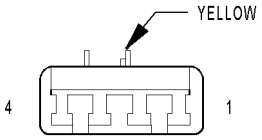
CAV	CIRCUIT	FUNCTION
1	Q21 14WT	LEFT FRONT POWER WINDOW DRIVER (DOWN)
2	Q11 14LB	LEFT FRONT POWER WINDOW DRIVER (UP)



DRIVER SEAT BELT SWITCH (JR41 EXCEPT EXPORT)

DRIVER SEAT BELT SWITCH (JR41 EXCEPT EXPORT) - GRAY 2 WAY

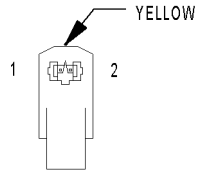
CAV	CIRCUIT	FUNCTION
1	Z237 20BK	GROUND
2	G10 20LG/RD	SEAT BELT SWITCH SENSE



DRIVER SEAT BELT TENSIONER (JR27)

DRIVER SEAT BELT TENSIONER (JR27) - YELLOW 4 WAY

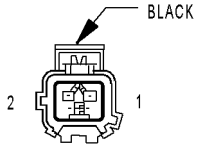
CAV	CIRCUIT	FUNCTION
1	Z237 20BK (EXCEPT EX-PORT)	GROUND
2	G10 20LG/RD (EXCEPT EXPORT)	SEAT BELT SWITCH SENSE
3	R53 20LG/YL	DRIVER SEAT BELT TENSIONER LINE 2
4	R55 20LG/DG	DRIVER SEAT BELT TENSIONER LINE 1



DRIVER SEAT BELT TENSIONER (JR41)

DRIVER SEAT BELT TENSIONER (JR41) - YELLOW 2 WAY

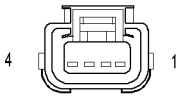
CAV	CIRCUIT	FUNCTION
1	R53 18LG/YL	DRIVER SEAT BELT TENSIONER LINE 2
2	R55 18LG/DG	DRIVER SEAT BELT TENSIONER LINE 1



FRONT WASHER PUMP MOTOR

FRONT WASHER PUMP MOTOR - BLACK 2 WAY

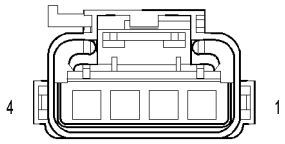
CAV	CIRCUIT	FUNCTION
1	Z216 18BK	GROUND
2	V10 18BR	FRONT WASHER PUMP MOTOR CONTROL



FRONT WIPER MOTOR (EARLY BUILD)

FRONT WIPER MOTOR (EARLY BUILD) - 4 WAY

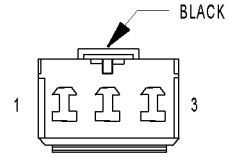
CAV	CIRCUIT	FUNCTION
1	V55 20TN/RD	FRONT WIPER PARK SWITCH SENSE
2	Z114 20BK	GROUND
3	V3 16BR/WT	FRONT WIPER LOW SPEED OUTPUT
4	V4 16RD/YL	FRONT WIPER HIGH SPEED OUTPUT



FUEL PUMP MODULE

FUEL PUMP MODULE - 4 WAY

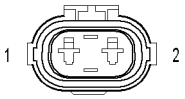
CAV	CIRCUIT	FUNCTION
1	Z211 12BK	GROUND
2	Z211 18BK	GROUND
3	G4 18DB	FUEL LEVEL SENSOR SIGNAL
4	A141 14RD	FUEL PUMP RELAY OUTPUT



HEADLAMP LEVELING SWITCH (EXPORT)

HEADLAMP LEVELING SWITCH (EXPORT) - BLACK 3 WAY

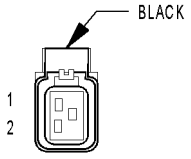
CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	FUSED PARK LAMP RELAY OUTPUT
2	Z3 16BK/OR (JR27)	GROUND
2	Z3 16BK (JR41)	GROUND
3	L101 18RD	HEADLAMP ADJUST SIGNAL



HEADLAMP WASHER PUMP MOTOR (JR41 EXPORT)

HEADLAMP WASHER PUMP MOTOR (JR41 EXPORT) - 2 WAY

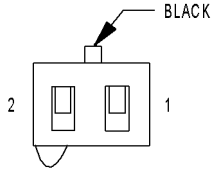
CAV	CIRCUIT	FUNCTION
1	V53 14RD/YL	HEADLAMP WASHER RELAY OUTPUT
2	Z216 14BK	GROUND



HORN

HORN - BLACK 2 WAY

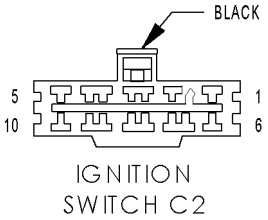
CAV	CIRCUIT	FUNCTION
1	Z307 20BK	GROUND
2	X2 20DG/RD	HORN RELAY OUTPUT



IGNITION SWITCH C1

IGNITION SWITCH C1 - BLACK 2 WAY

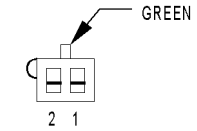
CAV	CIRCUIT	FUNCTION
1	A51 20RD/WT	FUSED B(+)
2	A81 20DG/RD	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)



IGNITION
SWITCH C2

IGNITION SWITCH C2 - BLACK 10 WAY

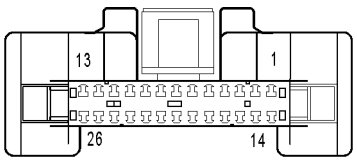
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	A2 12PK/BK	FUSED B(+)
4	A22 12BK/OR	FUSED IGNITION SWITCH OUTPUT (RUN)
5	-	-
6	-	-
7	A1 18RD	FUSED B(+)
8	A31 16BK/WT	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
8	A31 18BK/LB	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
9	A21 16DB	FUSED IGNITION SWITCH OUTPUT (RUN-START)
10	A41 18YL	FUSED IGNITION SWITCH OUTPUT (START)



IGNITION
SWITCH
C3

IGNITION SWITCH C3 - GREEN 2 WAY

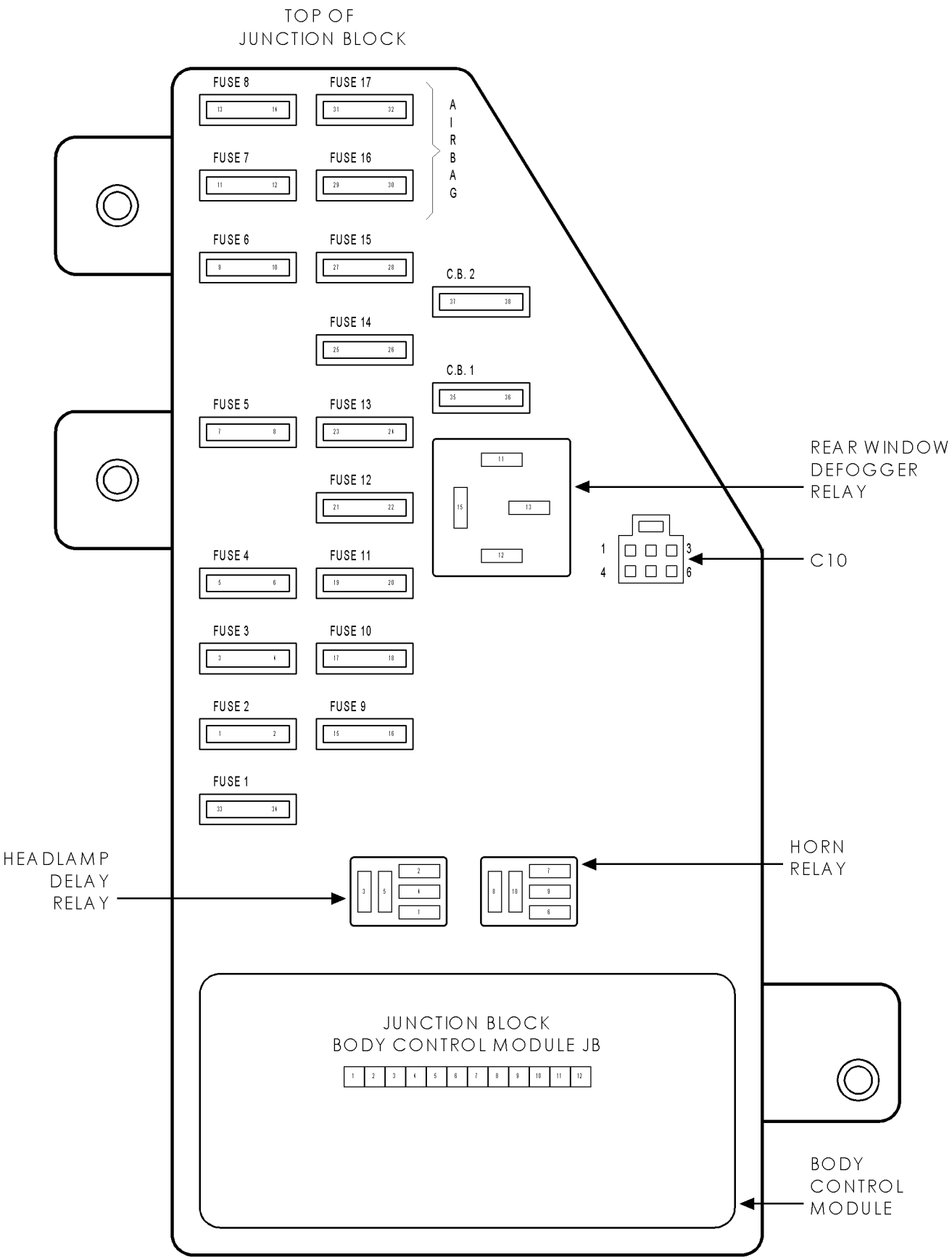
CAV	CIRCUIT	FUNCTION
1	Z233 20BK/WT	GROUND
2	G26 20LB	KEY-IN IGNITION SWITCH SENSE



INSTRUMENT
CLUSTER

INSTRUMENT CLUSTER - 26 WAY

CAV	CIRCUIT	FUNCTION
1	-	-
2	D25 20VT/OR	PCI BUS (MIC)
3	D25 20VT/RD	PCI BUS (TRAVELER)
4	-	-
5	G69 20BK/OR	VTSS INDICATOR DRIVER
6	-	-
7	-	-
8	B27 20RD/YL	TRACTION CONTROL SWITCH SENSE
9	-	-
10	Z105 20BK/LB	GROUND
11	Z106 18BK/OR	GROUND
12	E2 20OR	PANEL LAMPS DRIVER
13	L36 18LG (REAR FOG LAMPS)	REAR FOG LAMP INDICATOR
14	G6 20GY	ENGINE OIL PRESSURE SWITCH SENSE
15	F11 20RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
16	-	-
17	-	-
18	L61 18LG/TN	LEFT TURN SIGNAL
19	L60 18TN/BR	RIGHT TURN SIGNAL
20	-	-
21	F33 20PK/WT	FUSED B(+)
22	G9 18GY/BK	BRAKE WARNING INDICATOR DRIVER
23	Z104 20BK	GROUND
24	G10 20LG/RD (EXCEPT EXPORT)	SEAT BELT SWITCH SENSE
25	-	-
26	L39 18LB	FOG LAMP RELAY OUTPUT


TOP OF
JUNCTION BLOCK
FUSE 8
FUSE 17
FUSE 7
FUSE 16
AIRBAG
FUSE 6
FUSE 15
C.B. 2
FUSE 14
C.B. 1
FUSE 5
FUSE 13
FUSE 12
FUSE 4
FUSE 11
FUSE 3
FUSE 10
FUSE 2
FUSE 9
FUSE 1
REAR WINDOW
DEFOGGER
RELAY
C10
HEADLAMP
DELAY
RELAY
HORN
RELAY
JUNCTION BLOCK
BODY CONTROL MODULE JB
BODY
CONTROL
MODULE

FUSES (JB)

FUSE NO.	AMPS	FUSED CIRCUIT	FUNCTION
1	30A	C1 14DG	FUSED IGNITION SWITCH OUTPUT (RUN)
2	10A	INTERNAL	FUSED RIGHT HIGH BEAM OUTPUT
3	10A	L33 18LG/BR	FUSED LEFT HIGH BEAM OUTPUT
4	15A	INTERNAL	FUSED IGNITION SWITCH OUTPUT (RUN)
5	10A	INTERNAL	FUSED B(+)
6	10A	INTERNAL	FUSED REAR WINDOW DEFOGGER RELAY OUTPUT
7	20A	INTERNAL	FUSED B(+)
8	20A	INTERNAL	FUSED B(+)
9	15A	INTERNAL	FUSED B(+)
10	20A	INTERNAL (EXCEPT EXPORT)	FUSED B(+)
10	20A	L25 20BR (EXPORT)	FUSED FOG LAMP SWITCH FEED
11	10A	INTERNAL	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
12	10A	INTERNAL	FUSED LEFT LOW BEAM OUTPUT
13	20A	INTERNAL	FUSED RIGHT LOW BEAM OUTPUT
14	10A	X12 18RD/WT	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
15	10A	INTERNAL	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
16	10A	F23 20DB/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
17	10A	F14 18LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
17	10A	F14 20LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN)

HEADLAMP DELAY RELAY

CAV	CIRCUIT	FUNCTION
1	INTERNAL	FUSED B(+)
2	INTERNAL	HEADLAMP DELAY RELAY CONTROL
3	INTERNAL	FUSED B(+)
4	-	-
5	INTERNAL	HEADLAMP DELAY RELAY OUTPUT

HORN RELAY

CAV	CIRCUIT	FUNCTION
6	INTERNAL	FUSED B(+)
7	INTERNAL	HORN RELAY CONTROL
8	INTERNAL	FUSED B(+)
9	-	-
10	X2 18DG/RD	HORN RELAY OUTPUT

REAR WINDOW DEFOGGER RELAY

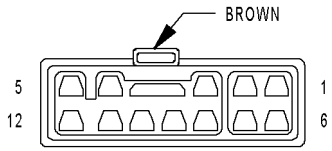
CAV	CIRCUIT	FUNCTION
11	INTERNAL	REAR WINDOW DEFOGGER RELAY CONTROL
12	INTERNAL	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
13	INTERNAL	FUSED B(+)
15	INTERNAL	REAR WINDOW DEFOGGER RELAY OUTPUT



JUNCTION BLOCK BODY CONTROL MODULE JB

JUNCTION BLOCK BODY CONTROL MODULE JB - 12 WAY

CAV	CIRCUIT	FUNCTION
1	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
2	INTERNAL	FUSED B(+)
3	INTERNAL	REAR WINDOW DEFOGGER RELAY CONTROL
4	INTERNAL	HEADLAMP DELAY RELAY OUTPUT
5	INTERNAL	HEADLAMP DELAY RELAY CONTROL
6	INTERNAL	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
7	INTERNAL	HORN RELAY CONTROL
8	INTERNAL	HEADLAMP SWITCH OUTPUT
9	M2 18YL (JR27)	COURTESY LAMPS DRIVER
9	M2 20YL (JR41)	COURTESY LAMPS DRIVER
10	INTERNAL	GROUND
11	INTERNAL	FUSED IGNITION SWITCH OUTPUT (RUN-START)
12	INTERNAL	FUSED B(+)



JUNCTION BLOCK C1

JUNCTION BLOCK C1 - BROWN 12 WAY

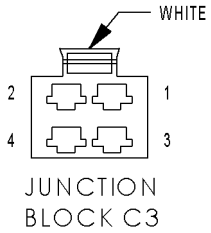
CAV	CIRCUIT	FUNCTION
1	G9 20GY/BK	BRAKE WARNING INDICATOR DRIVER
2	-	-
3	L34 18RD/OR	FUSED RIGHT HIGH BEAM OUTPUT
4	L60 20TN	RIGHT TURN SIGNAL
5	L61 16LG	LEFT TURN SIGNAL
6	L33 20LG/BR	FUSED LEFT HIGH BEAM OUTPUT
7	-	-
8	L7 20BK/YL	HEADLAMP SWITCH OUTPUT
9	L7 20BK/BR	HEADLAMP SWITCH OUTPUT
10	L39 20LB/OR (FRONT FOG LAMPS)	FOG LAMP SWITCH OUTPUT
11	L39 20LB (FRONT FOG LAMPS)	FOG LAMP SWITCH OUTPUT
12	L43 18VT	FUSED LEFT LOW BEAM OUTPUT



JUNCTION BLOCK C2

JUNCTION BLOCK C2 - 10 WAY

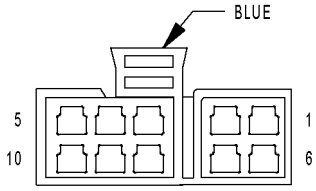
CAV	CIRCUIT	FUNCTION
1	L50 20WT/TN (ABS)	BRAKE LAMP SWITCH OUTPUT
2	A7 18RD/BK	FUSED B(+)
3	L50 16WT/TN	BRAKE LAMP SWITCH OUTPUT
4	F20 18WT	FUSED IGNITION SWITCH OUTPUT (RUN)
5	L44 20VT/RD	FUSED RIGHT LOW BEAM OUTPUT
6	F11 18RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
7	A21 16DB	FUSED IGNITION SWITCH OUTPUT (RUN-START)
8	X2 20DG/RD	HORN RELAY OUTPUT
9	F20 18WT/YL (EARLY BUILD)	FUSED IGNITION SWITCH OUTPUT (RUN)
9	F20 20WT/YL (LATE BUILD)	FUSED IGNITION SWITCH OUTPUT (RUN)
10	F13 20DB	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)



JUNCTION BLOCK C3

JUNCTION BLOCK C3 - WHITE 4 WAY

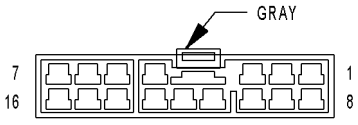
CAV	CIRCUIT	FUNCTION
1	A7 16RD/BK	FUSED B(+)
2	A13 12PK/WT	FUSED B(+)
3	A3 12RD/WT	FUSED B(+)
4	A4 12BK/PK	FUSED B(+)



JUNCTION BLOCK C4

JUNCTION BLOCK C4 - BLUE 10 WAY

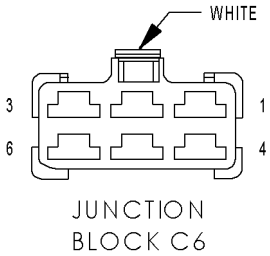
CAV	CIRCUIT	FUNCTION
1	-	-
2	Z106 18BK/OR	GROUND
3	Z239 20BK/LB	GROUND
4	F23 20DB/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
5	G9 20GY/BK	BRAKE WARNING INDICATOR DRIVER
6	Z3 16BK/OR (JR27 EXPORT)	GROUND
6	Z3 16BK (JR41 EXPORT)	GROUND
7	Z305 20BK/YL	GROUND
8	-	-
9	Z115 16BK/RD (PREMIUM)	GROUND
10	Z126 16BK/LG (JR41 PREMIUM)	GROUND



JUNCTION BLOCK C5

JUNCTION BLOCK C5 - GRAY 16 WAY

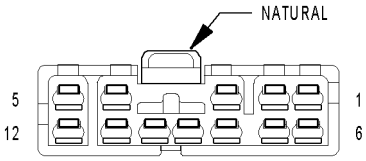
CAV	CIRCUIT	FUNCTION
1	F75 16VT (PREMIUM)	FUSED B(+)
2	-	-
3	L7 16BK/YL	HEADLAMP SWITCH OUTPUT
4	-	-
5	L39 20LB/WT (BASE/ EXPORT EARLY BUILD)	FOG LAMP SWITCH OUTPUT
5	L39 20LB/WT (LATE BUILD)	FOG LAMP SWITCH OUTPUT
6	G9 18GY/BK	BRAKE WARNING INDICATOR DRIVER
7	-	-
8	-	-
9	A21 16DB	FUSED IGNITION SWITCH OUTPUT (RUN-START)
10	L39 18LB	FOG LAMP SWITCH OUTPUT
11	-	-
12	M1 18PK	FUSED B(+)
13	M1 20PK/DB	FUSED B(+)
14	A31 16BK/WT	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
15	Z110 20BK	GROUND
16	F14 20LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN-START)
16	F14 18LG/YL (JR41)	FUSED IGNITION SWITCH OUTPUT (RUN-START)



JUNCTION BLOCK C6

JUNCTION BLOCK C6 - WHITE 6 WAY

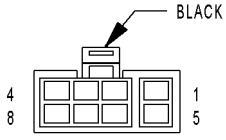
CAV	CIRCUIT	FUNCTION
1	A22 12BK/OR	FUSED IGNITION SWITCH OUTPUT (RUN)
2	L4 16VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
2	L4 16VT/WT (BASE/ EXPORT)	DIMMER SWITCH LOW BEAM OUTPUT
3	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
4	A3 16RD/WT	FUSED B(+)
4	A3 16RD/WT	FUSED B(+)
5	-	-
6	C1 14DG	FUSED IGNITION SWITCH OUTPUT (RUN)



JUNCTION BLOCK C7

JUNCTION BLOCK C7 - NATURAL 12 WAY

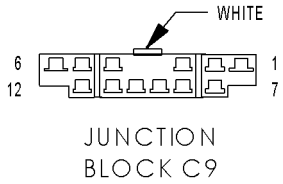
CAV	CIRCUIT	FUNCTION
1	F13 18DB	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
2	A81 20DG/RD	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
3	L60 18TN/BR	RIGHT TURN SIGNAL
4	L44 20VT/RD (FOG LAMPS)	FUSED RIGHT LOW BEAM OUTPUT
5	C16 20LB/YL (MTC)	FUSED REAR WINDOW DEFOGGER RELAY OUTPUT
6	X12 18RD/WT	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
7	L61 20LG	LEFT TURN SIGNAL
8	L60 16TN	RIGHT TURN SIGNAL
9	L61 18LG/TN	LEFT TURN SIGNAL
10	F11 18RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
11	F33 20PK/WT	FUSED B(+)
12	F33 16PK/RD	FUSED B(+)



JUNCTION BLOCK C8

JUNCTION BLOCK C8 - BLACK 8 WAY

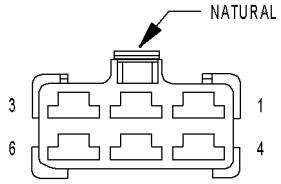
CAV	CIRCUIT	FUNCTION
1	Q1 14YL (JR41)	POWER WINDOW SWITCH FEED
2	M1 16PK	FUSED B(+)
3	C16 20LB/YL (MTC)	FUSED REAR WINDOW DEFOGGER RELAY OUTPUT
4	C16 20LB/OR (MTC)	FUSED REAR WINDOW DEFOGGER RELAY OUTPUT
5	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)
6	Q1 14YL/VT (JR41)	POWER WINDOW SWITCH FEED
7	Q1 14YL/WT (JR41)	POWER WINDOW SWITCH FEED
8	Q1 14YL/TN (JR41)	POWER WINDOW SWITCH FEED



JUNCTION BLOCK C9

JUNCTION BLOCK C9 - WHITE 12 WAY

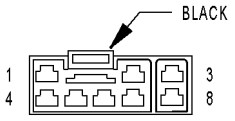
CAV	CIRCUIT	FUNCTION
1	F35 16RD (POWER SEATS)	FUSED B(+)
2	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
2	F20 20WT (JR27)	FUSED IGNITION SWITCH OUTPUT (RUN)
3	Z313 14BK	GROUND
4	L60 20TN	RIGHT TURN SIGNAL
5	L61 20LG (JR27)	LEFT TURN SIGNAL
5	L61 20LG/TN (JR41 EARLY BUILD)	LEFT TURN SIGNAL
5	L61 20LG (JR41 LATE BUILD)	LEFT TURN SIGNAL
6	C15 12BK/WT	REAR WINDOW DEFOGGER RELAY OUTPUT
7	M1 18PK/VT (JR27/JR41 EXPORT)	FUSED B(+)
8	-	-
9	L50 18WT/TN	BRAKE LAMP SWITCH OUTPUT
9	L50 18WT/TN	BRAKE LAMP SWITCH OUTPUT
10	L7 20BK/YL	HEADLAMP SWITCH OUTPUT
10	L7 20BK/YL (JR27)	HEADLAMP SWITCH OUTPUT
11	-	-
12	M1 18PK	FUSED B(+)



JUNCTION BLOCK C10

JUNCTION BLOCK C10 - NATURAL 6 WAY

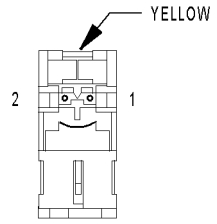
CAV	CIRCUIT	FUNCTION
1	M2 18YL (JR27)	COURTESY LAMPS DRIVER
1	M2 18BK/YL (JR27)	COURTESY LAMPS DRIVER
1	M2 20YL (JR41)	COURTESY LAMPS DRIVER
1	M2 20YL (JR41)	COURTESY LAMPS DRIVER
2	-	-
3	F21 18TN (JR41 PREMIUM)	FUSED IGNITION SWITCH OUTPUT (RUN)
4	Z312 18BK (JR27 JR41 PREMIUM)	GROUND
4	Z312 18BK (JR27)	GROUND
5	-	-
6	M1 18PK (JR27)	FUSED B(+)
6	M1 20PK (JR41)	FUSED B(+)



JUNCTION BLOCK C11 (EXPORT)

JUNCTION BLOCK C11 (EXPORT) - BLACK 8 WAY

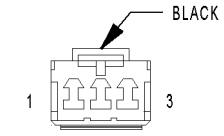
CAV	CIRCUIT	FUNCTION
1	-	-
2	L25 20BR	FUSED FOG LAMP SWITCH FEED
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-



LEFT CURTAIN AIRBAG SQUIB (JR41)

LEFT CURTAIN AIRBAG SQUIB (JR41) - YELLOW 2 WAY

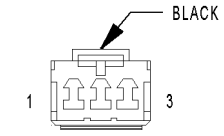
CAV	CIRCUIT	FUNCTION
1	R77 20LB/BR	LEFT CURTAIN SQUIB 1 LINE 2
2	R75 20LB/OR	LEFT CURTAIN SQUIB 1 LINE 1



LEFT FRONT DOOR SPEAKER

LEFT FRONT DOOR SPEAKER - BLACK 3 WAY

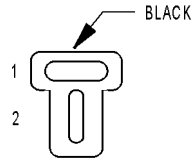
CAV	CIRCUIT	FUNCTION
1	X85 18LG/DG (BASE)	LEFT FRONT SPEAKER (-)
1	X85 18LG/DG (PREMIUM)	AMPLIFIED LEFT FRONT SPEAKER (-)
2	-	-
3	X87 18LG/VT (BASE)	LEFT FRONT SPEAKER (+)
3	X87 18LG/VT (PREMIUM)	AMPLIFIED LEFT FRONT SPEAKER (+)



LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE)

LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE) - BLACK 3 WAY

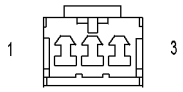
CAV	CIRCUIT	FUNCTION
1	X55 20BR/RD	LEFT INSTRUMENT PANEL SPEAKER (-)
1	X55 20BR/RD	LEFT INSTRUMENT PANEL SPEAKER (-)
2	-	-
3	X53 20DG	LEFT INSTRUMENT PANEL SPEAKER (+)
3	X53 20DG	LEFT INSTRUMENT PANEL SPEAKER (+)



LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM)

LEFT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM) - BLACK 2 WAY

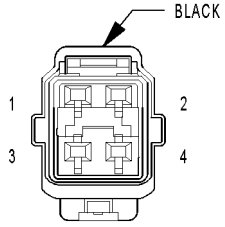
CAV	CIRCUIT	FUNCTION
1	X81 18YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (-)
2	X83 18YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (+)



LEFT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM)

LEFT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM) - 3 WAY

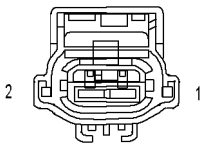
CAV	CIRCUIT	FUNCTION
1	X81 18YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (-)
2	-	-
3	X83 18YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (+)



LEFT REAR DOOR LOCK MOTOR/ AJAR SWITCH (JR41)

LEFT REAR DOOR LOCK MOTOR/AJAR SWITCH (JR41) - BLACK 4 WAY

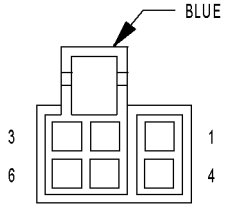
CAV	CIRCUIT	FUNCTION
1	G77 20TN/YL	LEFT REAR DOOR AJAR SWITCH SENSE
2	Z317 18BK	GROUND
3	P181 18PK/DB	LEFT REAR UNLOCK RELAY OUTPUT
4	P179 18OR/TN	LEFT REAR LOCK RELAY OUTPUT



LEFT REAR POWER WINDOW MOTOR

LEFT REAR POWER WINDOW MOTOR - 2 WAY

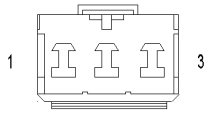
CAV	CIRCUIT	FUNCTION
1	Q23 14RD/WT (JR27)	LEFT REAR WINDOW DRIVER DOWN
1	Q23 14DG (JR41)	LEFT REAR WINDOW DRIVER DOWN
2	Q13 14DB (JR27)	LEFT REAR WINDOW DRIVER UP
2	Q13 14GY (JR41)	LEFT REAR WINDOW DRIVER UP



LEFT REAR POWER WINDOW SWITCH (JR41)

LEFT REAR POWER WINDOW SWITCH (JR41) - BLUE 6 WAY

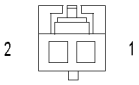
CAV	CIRCUIT	FUNCTION
1	Q23 14RD/WT	LEFT REAR WINDOW DRIVER DOWN
2	Q17 14DB/WT	MASTER WINDOW SWITCH LEFT REAR UP
3	-	-
4	Q27 14RD/BK	MASTER WINDOW SWITCH LEFT REAR DOWN
5	Q13 14DB	LEFT REAR WINDOW DRIVER UP
6	Q1 14YL	POWER WINDOW SWITCH FEED



LEFT REAR SPEAKER

LEFT REAR SPEAKER - 3 WAY

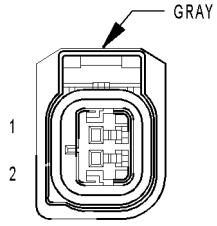
CAV	CIRCUIT	FUNCTION
1	X91 18WT/BK (BASE)	LEFT REAR SPEAKER (-)
1	X91 18WT/BK (PREMIUM)	AMPLIFIED LEFT REAR SPEAKER (-)
2	-	-
3	X93 18WT/RD (BASE)	AMPLIFIED LEFT REAR WOOFER (+)
3	X93 18WT/RD (PREMIUM)	AMPLIFIED LEFT REAR SPEAKER (+)



LEFT REMOTE RADIO SWITCH (2.7L)

LEFT REMOTE RADIO SWITCH (2.7L) - 2 WAY

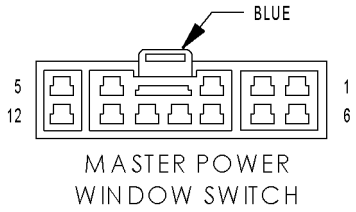
CAV	CIRCUIT	FUNCTION
1	X3 22BK/RD	HORN/RADIO CONTROL MUX
2	Z123 22BK/OR	GROUND



LEFT SIDE IMPACT SENSOR 1

LEFT SIDE IMPACT SENSOR 1 - GRAY 2 WAY

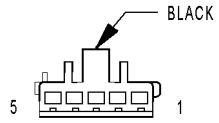
CAV	CIRCUIT	FUNCTION
1	R15 20LG/BR	LEFT SIDE IMPACT SENSOR 1 GROUND
2	R13 20LG/TN	LEFT SIDE IMPACT SENSOR 1 SIGNAL



MASTER POWER WINDOW SWITCH

MASTER POWER WINDOW SWITCH - BLUE 12 WAY

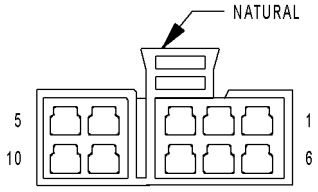
CAV	CIRCUIT	FUNCTION
1	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)
2	Q17 14DB/WT (EXCEPT JR27 LATE BUILD)	MASTER WINDOW SWITCH LEFT REAR UP
2	Q13 14DB (JR27 LATE BUILD)	LEFT REAR WINDOW DRIVER UP
3	Q290 14YL/OR (JR27)	MASTER WINDOW SWITCH LEFT REAR DOWN
3	Q27 14RD/BK (JR41)	MASTER WINDOW SWITCH LEFT REAR (DOWN)
4	Q18 14GY/BK (EXCEPT JR27 LATE BUILD)	MASTER WINDOW SWITCH RIGHT REAR UP
4	Q14 14GY (JR27 LATE BUILD)	RIGHT REAR WINDOW DRIVER UP
5	Q1 14YL (JR41)	POWER WINDOW SWITCH FEED
6	-	-
7	Q11 14LB (JR27)	LEFT FRONT WINDOW DRIVER (UP)
7	Q11 16LB (JR41)	LEFT FRONT WINDOW DRIVER (UP)
8	Q19 14OR/YL (JR27)	MASTER WINDOW SWITCH LEFT FRONT (DOWN)
8	Q21 16WT (JR41)	LEFT FRONT WINDOW DRIVER (DOWN)
9	Q32 14LB/OR (JR27)	MASTER WINDOW SWITCH RIGHT REAR (DOWN)
9	Q28 14DG/WT (JR41)	MASTER WINDOW SWITCH RIGHT REAR (DOWN)
10	Z314 14BK	GROUND
11	Q38 14OR/LB (JR27)	MASTER WINDOW SWITCH RIGHT FRONT (DOWN)
11	Q26 14VT/WT (JR41)	MASTER WINDOW SWITCH RIGHT FRONT (DOWN)
12	Q16 14BR/WT	MASTER WINDOW SWITCH RIGHT FRONT (UP)



MODE DOOR ACTUATOR

MODE DOOR ACTUATOR - BLACK 5 WAY

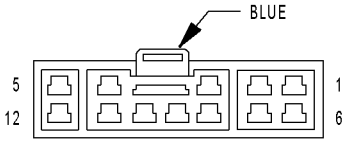
CAV	CIRCUIT	FUNCTION
1	C35 20DG/YL	MODE DOOR DRIVER
2	C57 20DB/GY	SENSOR GROUND
3	C37 20YL	MODE DOOR FEEDBACK SIGNAL
4	C26 20PK/DB	5 VOLT SUPPLY
5	C34 20DB/WT	COMMON DOOR DRIVER



MULTI-FUNCTION SWITCH C1

MULTI-FUNCTION SWITCH C1 - NATURAL 10 WAY

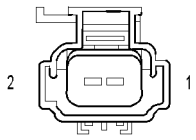
CAV	CIRCUIT	FUNCTION
1	L61 20LG	LEFT TURN SIGNAL
2	L60 16TN	RIGHT TURN SIGNAL
3	V10 18BR	FRONT WASHER PUMP MOTOR CONTROL
4	V52 20DG/RD	FRONT WIPER SWITCH MUX
5	Z234 16BK (BASE EARLY BUILD)	GROUND
5	Z234 16BK (LATE BUILD)	GROUND
5	Z997 16BK (PREMIUM EARLY BUILD)	GROUND
6	-	-
7	-	-
8	A15 16PK (BASE/EXPORT EARLY BUILD)	FUSED B(+)
8	A15 16PK (LATE BUILD)	FUSED B+
8	A15 16PK/LB (PREMIUM EARLY BUILD)	FUSED B(+)
9	F13 18DB	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
9	F13 18DB (JR27)	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
10	-	-



MULTI-FUNCTION SWITCH C2

MULTI-FUNCTION SWITCH C2 - BLUE 12 WAY

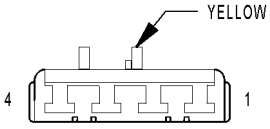
CAV	CIRCUIT	FUNCTION
1	L4 16VT/WT (EXCEPT PREMIUM)	DIMMER SWITCH LOW BEAM OUTPUT
1	L309 20WT/OR (PREMIUM)	AUTO HEADLAMP RELAY OUTPUT
2	L4 16VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
3	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
4	A3 16RD/WT	FUSED B(+)
5	A3 16RD/WT	FUSED B(+)
6	L7 16BK/YL	HEADLAMP SWITCH OUTPUT
7	F33 16PK/RD	FUSED B(+)
8	E19 20RD	PANEL LAMPS DRIVER
9	C57 20DB/GY	SENSOR GROUND
10	L109 20WT (EXCEPT EXPORT)	FUSED IGNITION SWITCH OUTPUT
10	L36 18LG (EXPORT)	REAR FOG LAMP CONTROL
11	L44 20VT/RD (BASE)	FUSED RIGHT LOW BEAM OUTPUT
11	L25 20BR (EXPORT)	FUSED FOG LAMP SWITCH FEED
11	F33 18PK/RD (PREMIUM)	FUSED B(+)
12	L39 20LB/WT (EXCEPT PREMIUM)	FRONT FOG LAMP INDICATOR DRIVER
12	L35 20BR/WT (PREMIUM)	FOG LAMP SWITCH SENSE



OIL PRESSURE SWITCH

OIL PRESSURE SWITCH - 2 WAY

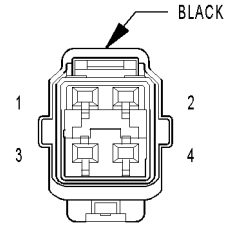
CAV	CIRCUIT	FUNCTION
1	G6 20GY	ENGINE OIL PRESSURE SWITCH SENSE
2	-	-



PASSENGER AIRBAG

PASSENGER AIRBAG - YELLOW 4 WAY

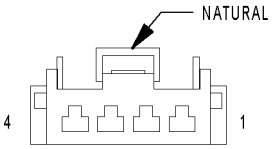
CAV	CIRCUIT	FUNCTION
1	R42 20BK/YL	PASSENGER SQUIB 1 LINE 1
2	R44 20DG/YL	PASSENGER SQUIB 1 LINE 2
3	R62 20OR/YL	PASSENGER SQUIB 2 LINE 1
4	R64 20TN/YL	PASSENGER SQUIB 2 LINE 2



PASSENGER DOOR LOCK MOTOR/ AJAR SWITCH

PASSENGER DOOR LOCK MOTOR/AJAR SWITCH - BLACK 4 WAY

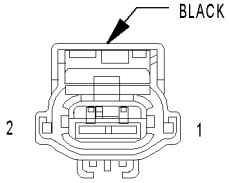
CAV	CIRCUIT	FUNCTION
1	G74 20TN/RD	PASSENGER DOOR AJAR SWITCH SENSE
2	Z315 20BK (JR27)	GROUND
2	Z242 20BK (JR41)	GROUND
3	P178 20PK/LB	PASSENGER UNLOCK RELAY OUTPUT
4	P176 20PK/BK	PASSENGER LOCK RELAY OUTPUT



PASSENGER DOOR LOCK SWITCH

PASSENGER DOOR LOCK SWITCH - NATURAL 4 WAY

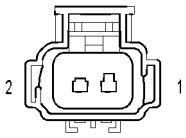
CAV	CIRCUIT	FUNCTION
1	M1 20PK	FUSED B(+)
2	-	-
3	Z315 20BK (EARLY BUILD)	GROUND
3	Z242 20BK (LATE BUILD)	GROUND
4	P96 20WT/LG	PASSENGER DOOR SWITCH MUX



PASSENGER POWER WINDOW MOTOR (JR27)

PASSENGER POWER WINDOW MOTOR (JR27) - BLACK 2 WAY

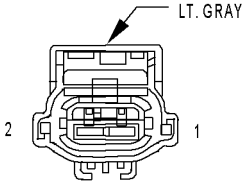
CAV	CIRCUIT	FUNCTION
1	Q22 14VT	RIGHT FRONT WINDOW DRIVER (DOWN)
2	Q12 14BR	RIGHT FRONT WINDOW DRIVER (UP)



PASSENGER POWER WINDOW MOTOR (JR41 EARLY BUILD)

PASSENGER POWER WINDOW MOTOR (JR41 EARLY BUILD) - 2 WAY

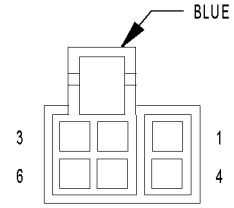
CAV	CIRCUIT	FUNCTION
1	Q22 16VT	RIGHT FRONT WINDOW DRIVER (DOWN)
2	Q12 16BR	RIGHT FRONT WINDOW DRIVER (UP)



PASSENGER POWER WINDOW MOTOR (JR41 LATE BUILD)

PASSENGER POWER WINDOW MOTOR (JR41 LATE BUILD) - LT. GRAY 2 WAY

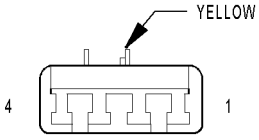
CAV	CIRCUIT	FUNCTION
1	Q22 16VT	RIGHT FRONT WINDOW DRIVER (DOWN)
2	Q12 16BR	RIGHT FRONT WINDOW DRIVER (UP)



PASSENGER POWER WINDOW SWITCH

PASSENGER POWER WINDOW SWITCH - BLUE 6 WAY

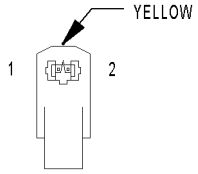
CAV	CIRCUIT	FUNCTION
1	Q22 14VT (JR27)	RIGHT FRONT WINDOW DRIVER (DOWN)
1	Q22 16VT (JR41)	RIGHT FRONT WINDOW DRIVER (DOWN)
2	Q16 14BR/WT	MASTER WINDOW SWITCH RIGHT FRONT (UP)
3	-	-
4	Q26 14VT/WT	MASTER WINDOW SWITCH RIGHT FRONT (DOWN)
5	Q12 14BR (JR27)	RIGHT FRONT WINDOW DRIVER (UP)
5	Q12 16BR (JR41)	RIGHT FRONT WINDOW DRIVER (UP)
6	F21 14TN (JR27)	FUSED IGNITION SWITCH OUTPUT (RUN)
6	Q1 14YL (JR41)	POWER WINDOW SWITCH FEED



PASSENGER SEAT BELT TENSIONER (JR27)

PASSENGER SEAT BELT TENSIONER (JR27) - YELLOW 4 WAY

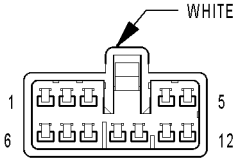
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	R54 20LB/YL	PASSENGER SEAT BELT TENSIONER LINE 2
4	R56 20LB/DG	PASSENGER SEAT BELT TENSIONER LINE 1



PASSENGER SEAT BELT TENSIONER (JR41)

PASSENGER SEAT BELT TENSIONER (JR41) - YELLOW 2 WAY

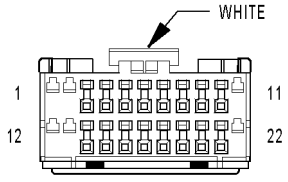
CAV	CIRCUIT	FUNCTION
1	R54 18LB/YL	PASSENGER SEAT BELT TENSIONER LINE 2
2	R56 18LB/DG	PASSENGER SEAT BELT TENSIONER LINE 1



POWER AMPLIFIER C1 (JR27 PREMIUM)

POWER AMPLIFIER C1 (JR27 PREMIUM) - WHITE 12 WAY

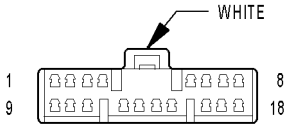
CAV	CIRCUIT	FUNCTION
1	X82 18LB/VT	AMPLIFIED RIGHT FRONT SPEAKER (+)
2	X87 18LG/VT	AMPLIFIED LEFT FRONT SPEAKER (+)
3	X92 20TN/BK	AMPLIFIED RIGHT REAR SPEAKER (-)
4	X86 18OR/RD	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (+)
5	X83 18YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (+)
6	X80 18LB/BK	AMPLIFIED RIGHT FRONT SPEAKER (-)
7	X85 18LG/BK (EARLY BUILD)	AMPLIFIED LEFT FRONT SPEAKER (-)
7	X85 18LG/DG (LATE BUILD)	AMPLIFIED LEFT FRONT SPEAKER (-)
8	X94 20TN/VT	AMPLIFIED RIGHT REAR SPEAKER (+)
9	X93 20WT/RD	AMPLIFIED LEFT REAR SPEAKER (+)
10	X91 20WT/BK	AMPLIFIED LEFT REAR SPEAKER (-)
11	X84 18OR/BK	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (-)
12	X81 18YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (-)



POWER
AMPLIFIER C1
(JR41 PREMIUM)

POWER AMPLIFIER C1 (JR41 PREMIUM) - WHITE 22 WAY

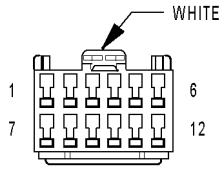
CAV	CIRCUIT	FUNCTION
1	F75 16VT	FUSED B(+)
2	Z115 16BK/RD	GROUND
3	X60 20DG/RD	RADIO 12V OUTPUT
4	X54 20VT	RIGHT FRONT SPEAKER (+)
5	X53 20DG	LEFT FRONT SPEAKER (+)
6	X52 20DB/WT	RIGHT REAR SPEAKER (+)
7	X51 20BR/YL	LEFT REAR SPEAKER (+)
8	-	-
9	-	-
10	X93 20WT/RD	AMPLIFIED LEFT REAR SPEAKER (+)
11	X94 20TN/VT	AMPLIFIED RIGHT REAR SPEAKER (+)
12	F75 16VT	FUSED B(+)
13	Z126 16BK/LG	GROUND
14	-	-
15	X56 20DB/RD	RIGHT FRONT SPEAKER (-)
16	X55 20BR/RD	LEFT FRONT SPEAKER (-)
17	X58 20DB/OR	RIGHT REAR SPEAKER (-)
18	X57 20BR/LB	LEFT REAR SPEAKER (-)
19	-	-
20	-	-
21	X91 20WT/BK	AMPLIFIED LEFT REAR SPEAKER (-)
22	X92 20TN/BK	AMPLIFIED RIGHT REAR SPEAKER (-)



POWER
AMPLIFIER C2
(JR27 PREMIUM)

POWER AMPLIFIER C2 (JR27 PREMIUM) - WHITE 18 WAY

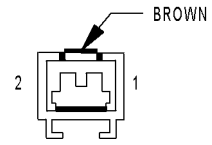
CAV	CIRCUIT	FUNCTION
1	F75 16VT	FUSED B(+)
2	-	-
3	-	-
4	-	-
5	X52 20DB/WT	RIGHT REAR SPEAKER (+)
6	X51 20BR/YL	LEFT REAR SPEAKER (+)
7	X54 20VT	RIGHT FRONT SPEAKER (+)
8	X53 20DG	LEFT FRONT SPEAKER (+)
9	Z115 16BK/RD	GROUND
10	-	-
11	-	-
12	-	-
13	-	-
14	X60 20DG/RD	RADIO 12V OUTPUT
15	X58 20DB/OR	RIGHT REAR SPEAKER (-)
16	X57 20BR/LB	LEFT REAR SPEAKER (-)
17	X56 20DB/RD	RIGHT FRONT SPEAKER (-)
18	X55 20BR/RD	LEFT FRONT SPEAKER (-)



POWER
AMPLIFIER C2
(JR41 PREMIUM)

POWER AMPLIFIER C2 (JR41 PREMIUM) - WHITE 12 WAY

CAV	CIRCUIT	FUNCTION
1	X87 18LG/VT	AMPLIFIED LEFT FRONT SPEAKER (+)
2	X82 18LB/VT	AMPLIFIED RIGHT FRONT SPEAKER (+)
3	X83 18YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (+)
4	X86 18OR/RD	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (+)
5	-	-
6	-	-
7	X85 18LG/DG	AMPLIFIED LEFT FRONT SPEAKER (-)
8	X80 18LB/BK	AMPLIFIED RIGHT FRONT SPEAKER (-)
9	X81 18YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL SPEAKER (-)
10	X84 18OR/BK	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (-)
11	-	-
12	-	-

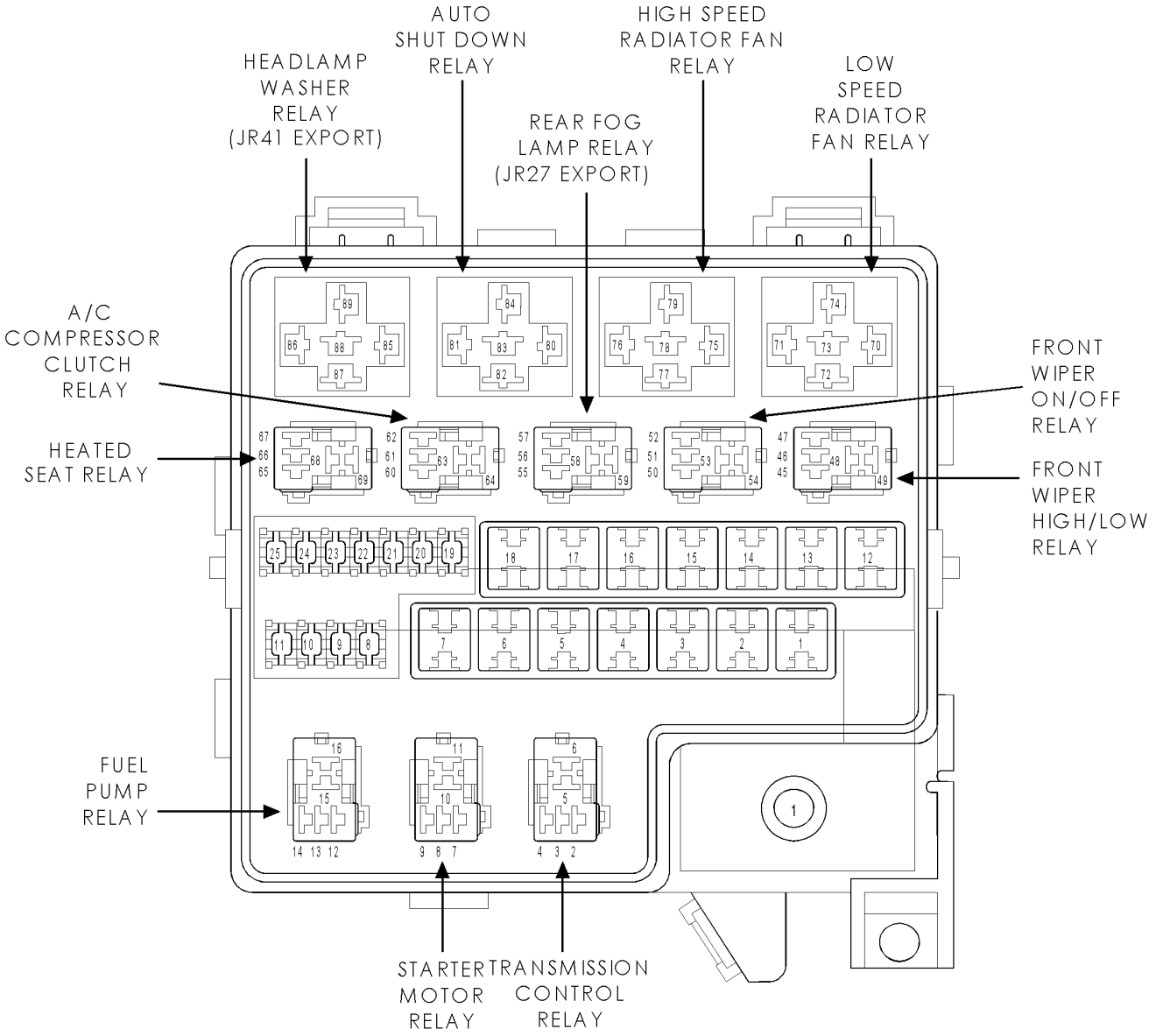


POWER
ANTENNA
(EXPORT)

POWER ANTENNA (EXPORT) - BROWN 2 WAY

CAV	CIRCUIT	FUNCTION
1	M1 18PK	FUSED B(+)
2	X60 20DG/RD	RADIO 12V OUTPUT

POWER DISTRIBUTION CENTER



FUSES (PDC)

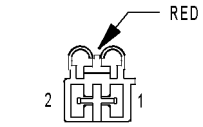
FUSE NO.	AMPS	FUSED CIRCUIT	FUNCTION
1	40A	A2 12PK/BK	FUSED B(+)
2	20A	F30 16RD	FUSED B(+)
3	30A	A53 14RD/YL (JR41 EXPORT)	FUSED B(+)
4	40A	A3 12RD/WT	FUSED B(+)
5	-	SPARE	-
6	40A	A4 12BK/PK	FUSED B(+)
7	40A	A161 14LB/WT	FUSED B(+)
8	20A	A1 18RD	FUSED B(+)
9	20A	A24 18BK (EATX)	FUSED B(+)
10	10A	A51 20RD/WT	FUSED B(+)
11	20A	A7 16RD/BK	FUSED B(+)
12	40A	A16 12RD/LG	FUSED B(+)
13	20A	F235 16RD	FUSED B(+)
14	30A	A14 14RD/TN	FUSED B(+)
15	40A	A10 12RD/DG (ABS)	FUSED B(+)
16	40A	A13 12PK/WT	FUSED B(+)
17	40A	A25 12DB (JR27)	FUSED B(+)
18	40A	A5 12RD/GY	FUSED B(+)
19	20A	A45 18BR (JR27)	FUSED B(+)
20	20A	A15 16PK	FUSED B(+)
21	-	SPARE	-
22	20A	A20 12RD/DB (ABS)	FUSED B(+)
23	20A	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
23	20A	F12 18DB/WT (HEATED SEATS)	FUSED IGNITION SWITCH OUTPUT (RUN-START)
24	20A	F42 16DG/LG (2.7L)	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
25	20A	F142 16OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT

HEADLAMP WASHER RELAY (JR41 EXPORT)

CAV	CIRCUIT	FUNCTION
85	V58 18BR/YL	HEADLAMP WASHER RELAY CONTROL
86	A53 16RD/YL	FUSED B(+)
87	V53 14RD/YL	HEADLAMP WASHER RELAY OUTPUT
88	-	-
89	A53 14RD/YL	FUSED B(+)

HEATED SEAT RELAY

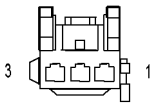
CAV	CIRCUIT	FUNCTION
65	P340 18LG/YL	HEATED SEAT RELAY CONTROL
66	-	-
67	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
68	P86 16PK/BK	HEATED SEAT RELAY OUTPUT
69	F235 16RD	FUSED B(+)



POWER TOP
PUMP MOTOR
(JR27)

POWER TOP PUMP MOTOR (JR27) - RED 2 WAY

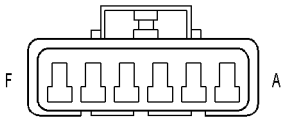
CAV	CIRCUIT	FUNCTION
1	P3 12YL	TOP UP RELAY OUTPUT
2	P4 12RD	TOP DOWN RELAY OUTPUT



POWER
TOP
SWITCH
(JR27)

POWER TOP SWITCH (JR27) - 3 WAY

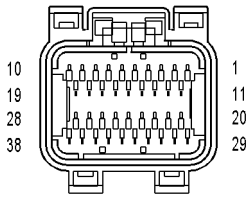
CAV	CIRCUIT	FUNCTION
1	F20 20YL/BK	FUSED IGNITION SWITCH OUTPUT (RUN)
2	Z249 20BK	GROUND
3	Q31 20OR/DB	CONVERTIBLE TOP SWITCH MUX



POWER TOP
UP/DOWN
RELAYS
(JR27)

POWER TOP UP/DOWN RELAYS (JR27) - 6 WAY

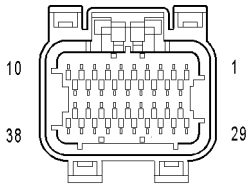
CAV	CIRCUIT	FUNCTION
A	P6 20RD/WT	TOP UP RELAY CONTROL
B	P3 12YL	TOP UP RELAY OUTPUT
C	A25 12DB	FUSED B(+)
D	Z253 12BK	GROUND
E	P4 12RD	TOP DOWN RELAY OUTPUT
F	P5 20YL/BK	TOP DOWN RELAY CONTROL



POWERTRAIN CONTROL MODULE C1 (NGC EARLY BUILD)

POWERTRAIN CONTROL MODULE C1 (NGC EARLY BUILD) - 38 WAY

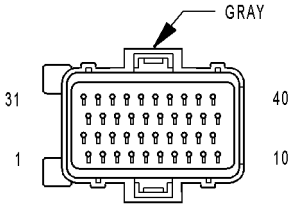
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	Z12 16BK/TN	GROUND
10	-	-
11	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
12	F11 18RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
13	G7 18WT/OR (MTX)	VEHICLE SPEED SIGNAL
14	-	-
15	-	-
16	-	-
17	-	-
18	Z12 16BK/TN	GROUND
19	-	-
20	-	-
21	C18 20DB	A/C PRESSURE SIGNAL
22	-	-
23	-	-
24	-	-
25	D20 20LG	SCI RECEIVE (PCM)
26	D6 20PK/LB (EATX)	SCI RECEIVE (TCM)
27	K7 18OR (MTX)	5 VOLT SUPPLY
28	-	-
29	A14 16RD/TN	FUSED B(+)
30	A41 16YL	FUSED IGNITION SWITCH OUTPUT (START)
31	-	-
32	K904 18DB/DG	O2 RETURN (DOWN)
33	-	-
34	-	-
35	-	-
36	D21 20PK	SCI TRANSMIT (PCM)
37	D15 20WT/DG (EATX)	SCI TRANSMIT (TCM)
38	D25 20YL/VT (EATX)	PCI BUS (PCM)
38	D25 20OR (MTX)	PCI BUS (PCM)



POWERTRAIN CONTROL MODULE C1 (NGC LATE BUILD)

POWERTRAIN CONTROL MODULE C1 (NGC LATE BUILD) - 38 WAY

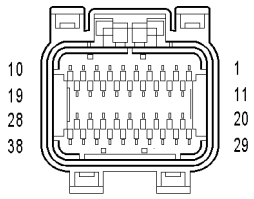
CAV	CIRCUIT	FUNCTION
1	-	
2	-	
3	-	
4	-	
5	-	
6	-	
7	-	
8	-	
9	Z12 16BK/TN	GROUND
10	-	
11	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
12	F11 18RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
13	G7 18WT/OR (MTX)	VEHICLE SPEED SIGNAL
14	-	
15	-	
16	-	
17	-	
18	Z12 16BK/TN	GROUND
19	-	
20	-	
21	C18 20DB	A/C PRESSURE SIGNAL
22	-	
23	-	
24	-	
25	D20 20LG	SCI RECEIVE (PCM)
26	D6 20PK/LB (EATX)	SCI RECEIVE (TCM)
27	K7 18OR (MTX EXPORT)	5 VOLT SUPPLY
28	K62 18BK/OR (2.4L PZEV)	AIR PUMP MOTOR RELAY CONTROL
29	A14 16RD/TN	FUSED B(+)
30	A41 16YL	FUSED IGNITION SWITCH OUTPUT (START)
31	K141 20TN/WT (MTX EXCEPT EXPORT)	O2 SENSOR 1/2 SIGNAL
32	K904 18DB/DG	O2 RETURN (DOWN)
33	K341 20PK/WT (MTX EXCEPT EXPORT)	O2 SENSOR 2/2 SIGNAL
34	-	
35	-	
36	D21 20PK	SCI TRANSMIT (PCM)
37	D15 20WT/DG (EATX)	SCI TRANSMIT (TCM)
38	D25 20VT/YL (EATX)	PCI BUS (PCM)
38	D25 20OR (MTX)	PCI BUS (PCM)



POWERTRAIN CONTROL MODULE C1 (SBEC EARLY BUILD)

POWERTRAIN CONTROL MODULE C1 (SBEC EARLY BUILD) - GRAY 40 WAY

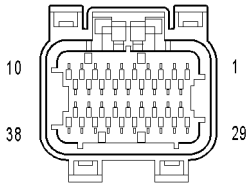
CAV	CIRCUIT	FUNCTION
1	K94 18TN/LG	COIL ON PLUG DRIVER NO. 4
2	K93 18TN/OR	COIL ON PLUG DRIVER NO. 3
3	K92 18TN/PK	COIL ON PLUG DRIVER NO. 2
4	K96 18TN/LB	COIL ON PLUG DRIVER NO. 6
5	V32 20YL/RD	SPEED CONTROL POWER SUPPLY
6	A142 14DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
7	K13 18YL/WT	FUEL INJECTOR NO. 3 DRIVER
8	K20 18DG	GENERATOR FIELD DRIVER
9	-	-
10	Z108 16BK/TN	GROUND
11	K91 18TN/RD	COIL ON PLUG DRIVER NO. 1
12	-	-
13	K11 18WT/DB	FUEL INJECTOR NO. 1 DRIVER
14	K58 18BR/DB	FUEL INJECTOR NO. 6 DRIVER
15	K38 18GY	FUEL INJECTOR NO. 5 DRIVER
16	K14 18LB/BR	FUEL INJECTOR NO. 4 DRIVER
17	K12 18TN	FUEL INJECTOR NO. 2 DRIVER
18	-	-
19	-	-
20	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
21	K95 18TN/DG	COIL ON PLUG DRIVER NO. 5
22	-	-
23	-	-
24	-	-
25	K42 18BK/VT	KNOCK SENSOR SIGNAL
26	K2 20TN/BK	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
27	K127 18DB/LG	OXYGEN SENSOR GROUND
28	-	-
29	K241 20LG/RD	OXYGEN SENSOR 2/1 SIGNAL
30	K41 20BK/DG	OXYGEN SENSOR 1/1 SIGNAL
31	K90 20TN	STARTER RELAY CONTROL
32	K24 20GY/BK	CRANKSHAFT POSITION SENSOR SIGNAL
33	K44 20TN/YL	CAMSHAFT POSITION SENSOR SIGNAL
34	-	-
35	K22 20OR/DB	THROTTLE POSITION SENSOR SIGNAL
36	K1 20DG/RD	MAP SENSOR SIGNAL
37	K21 20BK/RD	INLET AIR TEMPERATURE SENSOR SIGNAL
38	-	-
39	-	-
40	-	-



POWERTRAIN CONTROL MODULE C2 (NGC EARLY BUILD)

POWERTRAIN CONTROL MODULE C2 (NGC EARLY BUILD) - 38 WAY

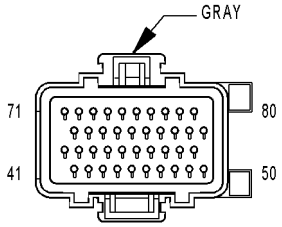
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	K17 18DB/TN	COIL CONTROL NO. 2
10	K19 18BK/GY	COIL CONTROL NO. 1
11	K14 18LB/BR	INJECTOR CONTROL NO. 4
12	K13 18YL/WT	INJECTOR CONTROL NO. 3
13	K12 18TN	INJECTOR CONTROL NO. 2
14	K11 18WT/DB	INJECTOR CONTROL NO. 1
15	-	-
16	-	-
17	K199 18BR/VT	O2 1/2 HEATER CONTROL
18	K99 18BR/OR	O2 1/1 HEATER CONTROL
19	K20 18DG	GEN FIELD DRIVER
20	K2 20TN/BK	ECT SIGNAL
21	K22 20OR/DB	TP SIGNAL
22	-	-
23	K1 20DG/RD	MAP SIGNAL
24	K45 20BK/VT	KS RETURN
25	K42 20DB/LG	KS SIGNAL
26	-	-
27	K4 20BK/LB	SENSOR GROUND 1
28	K60 18YL/BK	IAC RETURN
29	K6 20VT/WT	5 VOLT SUPPLY
30	K21 20BK/RD	IAT SIGNAL
31	K41 20BK/DG	O2 1/1 SIGNAL
32	K902 18BR/DG	O2 RETURN (UP)
33	K141 20TN/WT	O2 1/2 SIGNAL
34	K44 20TN/YL	CMP SIGNAL
35	K24 20GY/BK	CKP SIGNAL
36	-	-
37	-	-
38	K39 18GY/RD	IAC MOTOR CONTROL



POWERTRAIN CONTROL MODULE C2 (NGC LATE BUILD)

POWERTRAIN CONTROL MODULE C2 (NGC LATE BUILD) - 38 WAY

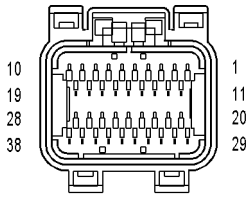
CAV	CIRCUIT	FUNCTION
1	K96 18TN/LB (2.7L)	COIL CONTROL NO. 6
2	K95 18TN/DG (2.7L)	COIL CONTROL NO. 5
3	K94 18TN/LG (2.7L)	COIL CONTROL NO. 4
4	K58 18BR/DB (2.7L)	INJECTOR CONTROL NO. 6
5	K38 18GY (2.7L)	INJECTOR CONTROL NO. 5
6	-	
7	K93 18TN/OR (2.7L)	COIL CONTROL NO. 3
8	K35 20GY/YL (2.4L PZEV)	EGR SOLENOID CONTROL
9	K17 18DB/TN (2.0L/2.4L)	O2 1/2 HEATER CONTROL
9	K92 18TN/PK (2.7L)	COIL CONTROL NO. 2
10	K19 18BK/GY (2.0L/2.4L)	COIL CONTROL NO. 1
10	K91 18TN/RD (2.7L)	COIL CONTROL NO. 1
11	K14 18LB/BR	INJECTOR CONTROL NO. 4
12	K13 18YL/WT	INJECTOR CONTROL NO. 3
13	K12 18TN	INJECTOR CONTROL NO. 2
14	K11 18WT/DB	INJECTOR CONTROL NO. 1
15	-	
16	-	
17	K199 18BR/VT (2.0L/2.4L)	O2 1/2 HEATER CONTROL
17	K299 18BR/WT (2.7L)	O2 2/1 HEATER CONTROL
18	K99 18BR/OR	O2 1/1 HEATER CONTROL
19	K20 18DG	GEN FIELD CONTROL
20	K2 20TN/BK	ECT SIGNAL
21	K22 20OR/DB	TP SIGNAL
22	K235 20LG/PK (2.4L PZEV)	EGR SENSOR SIGNAL
23	K1 20DG/RD	MAP SIGNAL
24	K45 20BK/VT	KS RETURN
25	K42 20DB/LG	KS SIGNAL
26	K57 20DB (2.4L PZEV)	MAF SENSOR SIGNAL
27	K4 20BK/LB	SENSOR GROUND 1
28	K60 18YL/BK	IAC RETURN
29	K6 20VT/WT	5 VOLT SUPPLY
30	K21 20BK/RD	IAT SIGNAL
31	K41 20BK/DG	O2 1/1 SIGNAL
32	K902 18BR/DG	O2 RETURN (UP)
33	K141 20TN/WT (2.0L/2.4L)	O2 1/2 SIGNAL
33	K241 20LG/RD (2.7L)	O2 2/1 SIGNAL
34	K44 20TN/YL	CMP SIGNAL
35	K24 20GY/BK	CKP SIGNAL
36	-	
37	-	
38	K39 18GY/RD	IAC MOTOR CONTROL



POWERTRAIN CONTROL MODULE C2 (SBEC EARLY BUILD)

POWERTRAIN CONTROL MODULE C2 (SBEC EARLY BUILD) - GRAY 40 WAY

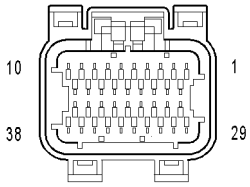
CAV	CIRCUIT	FUNCTION
41	V37 20PK/LG	SPEED CONTROL SWITCH SIGNAL
42	C18 20DB	A/C PRESSURE SIGNAL
43	K4 18BK/LB	SENSOR GROUND 1
44	K7 18OR/WT	8 VOLT SUPPLY
45	-	-
46	A14 14RD/TN	FUSED B(+)
47	Z109 16BK	GROUND
48	K40 20BR/WT	IDLE AIR CONTROL MOTOR NO. 3 DRIVER
49	K60 20YL/BK	IDLE AIR CONTROL MOTOR NO. 2 DRIVER
50	Z107 16BK/TN	GROUND
51	K141 20TN/WT	OXYGEN SENSOR 1/2 SIGNAL
52	K25 18VT/LG	AMBIENT TEMPERATURE SENSOR SIGNAL
53	K341 20PK/WT (EATX)	OXYGEN SENSOR 2/2 SIGNAL
54	-	-
55	C24 20DB/TN	LOW SPEED RADIATOR FAN RELAY CONTROL
56	V36 20TN/RD	SPEED CONTROL VACUUM SOLENOID CONTROL
57	K39 20GY/RD	IDLE AIR CONTROL MOTOR NO. 1 DRIVER
58	K59 20VT/BK	IDLE AIR CONTROL MOTOR NO. 4 DRIVER
59	D25 20OR	PCI BUS
60	-	-
61	K6 18VT/WT	5 VOLT SUPPLY
62	K29 20WT/PK	BRAKE SWITCH SENSE
63	T10 20YL/DG (EATX)	TORQUE MANAGEMENT REQUEST SENSE
64	C28 20DB/OR	A/C COMPRESSOR CLUTCH RELAY CONTROL
65	D21 20PK	SCI TRANSMIT
66	G7 18WT/OR (ABS)	VEHICLE SPEED SENSOR SIGNAL
67	K51 20DB/VT	AUTOMATIC SHUT DOWN RELAY CONTROL
68	K52 20PK/BK	EVAPORATIVE EMISSION SOLENOID CONTROL
69	C27 20DB/PK	HIGH SPEED RADIATOR FAN RELAY CONTROL
70	K108 20WT/TN	EVAPORATIVE SOLENOID SENSE
71	K71 20WT/RD (EATX)	EATX RPM SIGNAL
72	K107 20OR	LEAK DETECTION PUMP SWITCH SENSE
73	-	-
74	K31 20BR/LG	FUEL PUMP RELAY CONTROL
75	D20 20LG	SCI RECEIVE
76	T41 20BK/LB (EATX)	TRS T41 SENSE
77	K106 20WT/DG	LEAK DETECTION PUMP SOLENOID CONTROL
78	-	-
79	-	-
80	V35 20LG/RD	SPEED CONTROL VENT SOLENOID CONTROL



POWERTRAIN CONTROL MODULE C3 (NGC EARLY BUILD)

POWERTRAIN CONTROL MODULE C3 (NGC EARLY BUILD) - 38 WAY

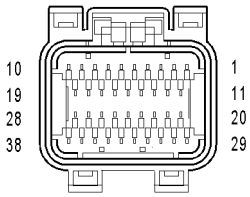
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	K51 20DB/VT	AUTOMATIC SHUT DOWN RELAY CONTROL
4	C27 20DB/PK	HIGH RAD FAN RELAY CONTROL
5	V35 20LG/RD	S/C VENT CONTROL
6	C24 20DB/TN	LOW RAD FAN RELAY CONTROL
7	V32 20YL/RD	S/C SUPPLY
8	K106 20WT/DG	NVLD SOLENOID CONTROL
9	-	-
10	-	-
11	C28 20DB/OR	A/C CLUTCH RELAY CONTROL
12	V36 20TN/RD	S/C VACUUM CONTROL
13	-	-
14	-	-
15	-	-
16	-	-
17	K4 18BK/LB	SENSOR GROUND 1
18	-	-
19	F142 16OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
20	K52 20PK/BK	EVAP PURGE CONTROL
21	T141 20YL/RD (MTX)	FUSED IGNITION SWITCH OUTPUT (START)
22	-	-
23	K29 20WT/PK	BRAKE SWITCH SIGNAL
24	-	-
25	-	-
26	T44 20YL	AUTOSTICK DOWNSHIFT SWITCH SIGNAL
27	T5 20LG	AUTOSTICK UPSHIFT SWITCH SIGNAL
28	F142 16OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
29	K108 20WT/TN	EVAP PURGE RETURN
30	K10 18DB/LG	PSP SWITCH SIGNAL
31	-	-
32	K25 18VT/LG	AAT SIGNAL
33	-	-
34	V37 20PK/LG	S/C SWITCH SIGNAL
35	K107 20OR	NVLD SWITCH SIGNAL
36	-	-
37	K31 20BR/LG	FUEL PUMP RELAY CONTROL
38	K90 20TN	STARTER RELAY CONTROL



POWERTRAIN CONTROL MODULE C3 (NGC LATE BUILD)

POWERTRAIN CONTROL MODULE C3 (NGC LATE BUILD) - 38 WAY

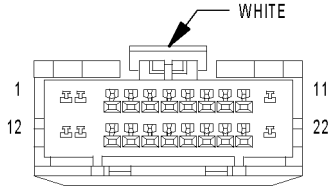
CAV	CIRCUIT	FUNCTION
1	-	
2	-	
3	K51 20DB/VT	AUTOMATIC SHUT DOWN RELAY CONTROL
4	C27 20DB/PK	HIGH SPEED RAD FAN RELAY CONTROL
5	V35 20LG/RD	S/C VENT CONTROL
6	C24 20DB/TN	LOW RAD FAN RELAY CONTROL
7	V32 20YL/RD	S/C SUPPLY
8	K106 20WT/DG	NVLD SOLENOID CONTROL
9	K199 18BR/VT	O2 1/2 HEATER CONTROL
10	K399 18BR/GY	O2 2/2 HEATER CONTROL
11	C28 20DB/OR	A/C CLUTCH RELAY CONTROL
12	V36 20TN/RD	S/C VACUUM CONTROL
13	-	
14	-	
15	-	
16	-	
17	K4 18BK/LB	SENSOR GROUND 1
18	-	
19	F142 16OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
20	K52 20PK/BK	EVAP PURGE CONTROL
21	T26 20DG/OR	CLUTCH INTERLOCK/ UPSTOP SWITCH OUTPUT
22	-	
23	K29 20WT/PK	BRAKE SWITCH SIGNAL
24	-	
25	-	
26	T44 20YL	AUTOSTICK DOWNSHIFT SWITCH SIGNAL
27	T5 20LG	AUTOSTICK UPSHIFT SWITCH SIGNAL
28	F142 16OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
29	K108 20WT/TN	EVAP PURGE RETURN
30	K10 18DB/LG	PSP SWITCH SIGNAL
31	-	
32	K25 18VT/LG	AAT SIGNAL
33	-	
34	V37 20RD/LG	S/C SWITCH SIGNAL
35	K107 20OR	NVLD SWITCH SIGNAL
36	-	
37	K31 20BR/LG	FUEL PUMP RELAY CONTROL
38	K90 20TN	STARTER RELAY CONTROL



POWERTRAIN CONTROL MODULE C4 (NGC)

POWERTRAIN CONTROL MODULE C4 (NGC) - 38 WAY

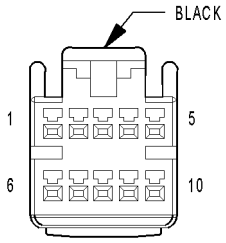
CAV	CIRCUIT	FUNCTION
1	T60 20BR	OVERDRIVE SOLENOID CONTROL
2	T59 20PK	UNDERDRIVE SOLENOID CONTROL
3	-	-
4	-	-
5	-	-
6	T19 20WT	2-4 SOLENOID CONTROL
7	-	-
8	-	-
9	-	-
10	T20 20LB	LOW/REVERSE SOLENOID CONTROL
11	-	-
12	Z14 16BK/YL	GROUND
13	Z13 16BK/RD	GROUND
14	Z13 16BK/RD	GROUND
15	T1 20LG/BK	TRS T1 SENSE
16	T3 20VT	TRS T3 SENSE
17	-	-
18	T15 20LG	TRANSMISSION CONTROL RELAY CONTROL
19	T16 20RD	TRANSMISSION CONTROL RELAY OUTPUT
20	-	-
21	-	-
22	T9 20OR/BK	OVERDRIVE PRESSURE SWITCH SENSE
23	-	-
24	-	-
25	-	-
26	-	-
27	T41 20BK/WT	TRS T41 SENSE
28	T16 20RD	TRANSMISSION CONTROL RELAY OUTPUT
29	T50 20DG	LOW/REVERSE PRESSURE SWITCH SENSE
30	T47 20YL/BK	2-4 PRESSURE SWITCH SENSE
31	-	-
32	T14 20LG/WT	OUTPUT SPEED SENSOR SIGNAL
33	T52 20RD/BK	INPUT SPEED SENSOR SIGNAL
34	T13 20DB/BK	SPEED SENSOR GROUND
35	T54 20VT/YL	TRANSMISSION TEMPERATURE SENSOR SIGNAL
36	-	-
37	T42 20VT/WT	TRS T42 SENSE
38	T16 20RD	TRANSMISSION CONTROL RELAY OUTPUT



RADIO C1

RADIO C1 - WHITE 22 WAY

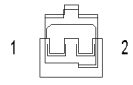
CAV	CIRCUIT	FUNCTION
1	-	-
2	X12 18RD/WT	FUSED IGNITION SWITCH OUTPUT (RUN-ACC)
3	E2 18OR/BR	PANEL LAMPS DRIVER
4	-	-
5	-	-
6	-	-
7	X54 20VT	RIGHT FRONT SPEAKER (+)
8	X56 20DB/RD	RIGHT FRONT SPEAKER (-)
9	X55 20BR/RD	LEFT FRONT SPEAKER (-)
10	X53 20DG	LEFT FRONT SPEAKER (+)
11	Z1 18BK	GROUND
12	M1 20PK	FUSED B(+)
13	X60 20DG/RD (EXCEPT JR27 BASE)	RADIO 12V OUTPUT
14	D25 20VT/YL	PCI BUS (RADIO)
15	-	-
16	-	-
17	-	-
18	X51 20BR/YL	LEFT REAR SPEAKER (+)
19	X57 20BR/LB	LEFT REAR SPEAKER (-)
20	X58 20DB/OR	RIGHT REAR SPEAKER (-)
21	X52 20DB/WT	RIGHT REAR SPEAKER (+)
22	-	-



RADIO C2

RADIO C2 - BLACK 10 WAY

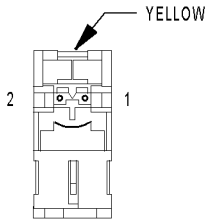
CAV	CIRCUIT	FUNCTION
1	X40 22GY/WT	AUDIO OUT RIGHT
2	Z4 22BK/OR	GROUND
3	C235 WT/LB	CD GROUND SHIELD
4	D25 22VT/YL	PCI BUS
5	X112 22RD	IGNITION SWITCH OUTPUT (RUN-ACC)
6	X41 22DG/WT	AUDIO OUT LEFT
7	Z140 22BK/TN	GROUND
8	-	-
9	E14 22OR/TN	PANEL LAMPS DIMMER SIGNAL
10	X160 22GY/YL	B(+)



RECIRCULATION DOOR ACTUATOR

RECIRCULATION DOOR ACTUATOR - 2 WAY

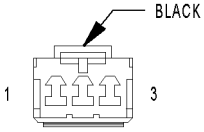
CAV	CIRCUIT	FUNCTION
1	C32 20GY/DB	RECIRCULATION DOOR DRIVER
2	C34 20DB/WT	COMMON DOOR DRIVER



RIGHT CURTAIN AIRBAG SQUIB (JR41)

RIGHT CURTAIN AIRBAG SQUIB (JR41) - YELLOW 2 WAY

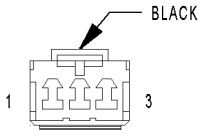
CAV	CIRCUIT	FUNCTION
1	R76 20LB/WT	RIGHT CURTAIN SQUIB 1 LINE 2
2	R74 20LB/YL	RIGHT CURTAIN SQUIB 1 LINE 1



RIGHT FRONT DOOR SPEAKER

RIGHT FRONT DOOR SPEAKER - BLACK 3 WAY

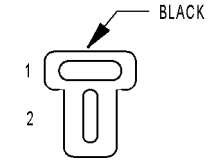
CAV	CIRCUIT	FUNCTION
1	X80 18LB/BK (BASE)	RIGHT FRONT SPEAKER (-)
1	X80 18LB/BK (PREMIUM)	AMPLIFIED RIGHT FRONT SPEAKER (-)
2	-	-
3	X82 18LB/VT (BASE)	RIGHT FRONT SPEAKER (+)
3	X82 18LB/VT (PREMIUM)	AMPLIFIED RIGHT FRONT SPEAKER (+)



RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE)

RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 BASE) - BLACK 3 WAY

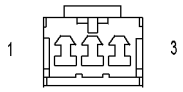
CAV	CIRCUIT	FUNCTION
1	X56 20DB/RD	RIGHT INSTRUMENT PANEL SPEAKER (-)
1	X56 20DB/RD	RIGHT INSTRUMENT PANEL SPEAKER (-)
2	-	-
3	X54 20VT	RIGHT INSTRUMENT PANEL SPEAKER (+)
3	X54 20VT	RIGHT INSTRUMENT PANEL SPEAKER (+)



RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM)

RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR27 PREMIUM) - BLACK 2 WAY

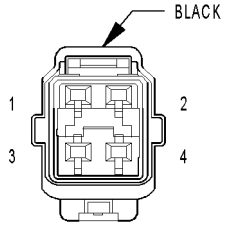
CAV	CIRCUIT	FUNCTION
1	X86 18OR/RD (EARLY BUILD)	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (+)
1	X84 18OR/BK (LATE BUILD)	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (-)
2	X84 18OR/BK (EARLY BUILD)	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (-)
2	X86 18OR/RD (LATE BUILD)	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (+)



RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM)

RIGHT FRONT INSTRUMENT PANEL SPEAKER (JR41 PREMIUM) - 3 WAY

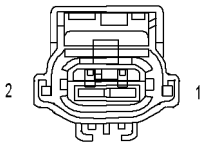
CAV	CIRCUIT	FUNCTION
1	X84 18OR/BK	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (-)
2	-	-
3	X86 18OR/RD	AMPLIFIED RIGHT INSTRUMENT PANEL SPEAKER (+)



RIGHT REAR DOOR LOCK MOTOR/ AJAR SWITCH (JR41)

RIGHT REAR DOOR LOCK MOTOR/AJAR SWITCH (JR41) - BLACK 4 WAY

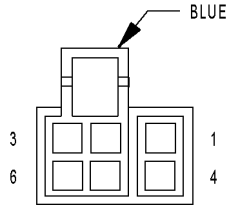
CAV	CIRCUIT	FUNCTION
1	G76 20TN/YL	RIGHT REAR DOOR AJAR SWITCH SENSE
2	Z318 18BK	GROUND
3	P182 18PK/DB	RIGHT REAR UNLOCK RELAY OUTPUT
4	P180 18OR/TN	RIGHT REAR LOCK RELAY OUTPUT



RIGHT REAR POWER WINDOW MOTOR

RIGHT REAR POWER WINDOW MOTOR - 2 WAY

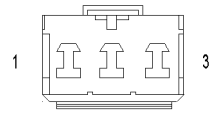
CAV	CIRCUIT	FUNCTION
1	Q24 14DG	RIGHT REAR WINDOW DRIVER DOWN
2	Q14 14GY	RIGHT REAR WINDOW DRIVER UP



RIGHT REAR POWER WINDOW SWITCH (JR41)

RIGHT REAR POWER WINDOW SWITCH (JR41) - BLUE 6 WAY

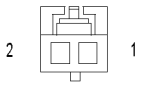
CAV	CIRCUIT	FUNCTION
1	Q24 14DG	RIGHT REAR WINDOW DRIVER DOWN
2	Q18 14GY/BK	MASTER WINDOW SWITCH RIGHT REAR (UP)
3	-	-
4	Q28 14DG/WT	MASTER WINDOW SWITCH RIGHT REAR (DOWN)
5	Q14 14GY	RIGHT REAR WINDOW DRIVER UP
6	Q1 14YL	POWER WINDOW SWITCH FEED



RIGHT REAR SPEAKER

RIGHT REAR SPEAKER - 3 WAY

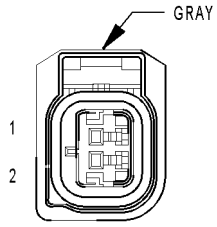
CAV	CIRCUIT	FUNCTION
1	X92 18TN/BK (BASE)	RIGHT REAR SPEAKER (-)
1	X92 18TN/BK (PREMIUM)	AMPLIFIED RIGHT REAR SPEAKER (-)
2	-	-
3	X94 18TN/VT (BASE)	RIGHT REAR SPEAKER (+)
3	X94 18TN/VT (PREMIUM)	AMPLIFIED RIGHT REAR SPEAKER (+)



RIGHT REMOTE RADIO SWITCH (2.7L)

RIGHT REMOTE RADIO SWITCH (2.7L) - 2 WAY

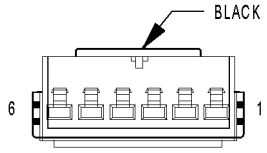
CAV	CIRCUIT	FUNCTION
1	X3 22BK/RD	HORN/RADIO CONTROL MUX
2	Z123 22BK/OR	GROUND



RIGHT SIDE IMPACT SENSOR 1

RIGHT SIDE IMPACT SENSOR 1 - GRAY 2 WAY

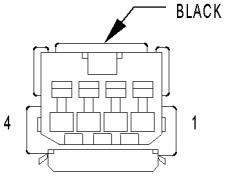
CAV	CIRCUIT	FUNCTION
1	R16 20BK/LG	RIGHT SIDE IMPACT SENSOR 1 GROUND
2	R14 20TN/LG	RIGHT SIDE IMPACT SENSOR 1 SIGNAL



SENTRY KEY IMMOBILIZER MODULE

SENTRY KEY IMMOBILIZER MODULE - BLACK 6 WAY

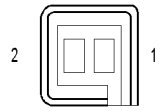
CAV	CIRCUIT	FUNCTION
1	-	-
2	D25 20VT/PK	PCI BUS
3	-	-
4	F12 20DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN-START)
5	Z110 20BK	GROUND
6	A51 20RD/WT	FUSED B(+)



SUN SENSOR (ATC)

SUN SENSOR (ATC) - BLACK 4 WAY

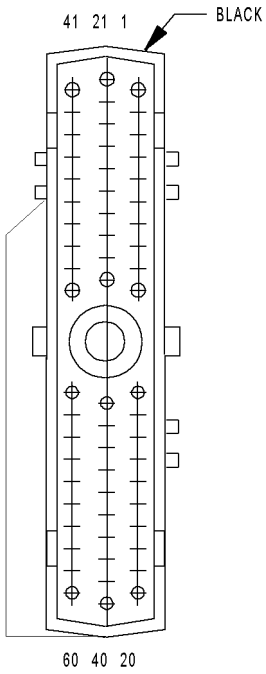
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	C57 20DB/GY	SENSOR GROUND
4	C38 20DB	SUN SENSOR SIGNAL



TRACTION
CONTROL
SWITCH

TRACTION CONTROL SWITCH - 2 WAY

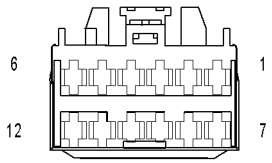
CAV	CIRCUIT	FUNCTION
1	Z2 20BK/LG	GROUND
2	B27 20RD/YL	TRACTION CONTROL SWITCH SENSE



TRANSMISSION CONTROL MODULE (2.7L EARLY BUILD)

TRANSMISSION CONTROL MODULE (2.7L EARLY BUILD) - BLACK 60 WAY

CAV	CIRCUIT	FUNCTION
1	T1 20LG/BK	TRS T1 SENSE
2	-	-
3	T3 20VT	TRS T3 SENSE
4	-	-
5	T5 20LG (AUTOSTICK)	AUTOSTICK UPSHIFT SWITCH SENSE
6	K71 20WT/RD	EATX RPM SIGNAL
7	D21 20PK	SCI TRANSMIT
8	A41 16YL	FUSED IGNITION SWITCH OUTPUT (START)
9	T9 20OR/BK	OVERDRIVE PRESSURE SWITCH SENSE
10	T10 20YL/DG	TORQUE MANAGEMENT REQUEST SENSE
11	F11 18RD/WT	FUSED IGNITION SWITCH OUTPUT (OFF-RUN-START)
12	K22 20OR/DB	THROTTLE POSITION SENSOR SIGNAL
13	T13 20DB/BK	SPEED SENSOR GROUND
14	T14 20LG/WT	OUTPUT SPEED SENSOR SIGNAL
15	T15 20LG	TRANSMISSION CONTROL RELAY CONTROL
16	T16 20RD	TRANSMISSION CONTROL RELAY OUTPUT
17	T16 20RD	TRANSMISSION CONTROL RELAY OUTPUT
18	-	-
19	T19 20WT	2-4 SOLENOID CONTROL
20	T20 20LB	LOW/REVERSE SOLENOID CONTROL
21	-	-
22	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	T41 20BK/WT	TRS T41 SENSE
42	T42 20VT/WT	TRS T42 SENSE
43	D25 20VT/YL	PCI BUS
44	T44 20YL (AUTOSTICK)	AUTOSTICK DOWNSHIFT SWITCH SENSE
45	-	-
46	D6 20PK/LB	SCI RECEIVE
47	T47 20YL/BK	2-4 PRESSURE SWITCH SENSE
48	-	-
49	-	-
50	T50 20DG	LOW/REVERSE PRESSURE SWITCH SENSE
51	K4 18BK/LB	SENSOR GROUND 1
52	T52 20RD/BK	INPUT SPEED SENSOR SIGNAL
53	Z112 18BK/YL	GROUND
54	T54 20VT/YL	TRANSMISSION TEMPERATURE SENSOR SIGNAL
55	-	-
56	A24 18BK	FUSED B(+)
57	Z113 18BK/RD	GROUND
58	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL
59	T59 20PK	UNDERDRIVE SOLENOID CONTROL
60	T60 20BR	OVERDRIVE SOLENOID CONTROL



WINDOW
DROP RELAY
ASSEMBLY
(JR27)

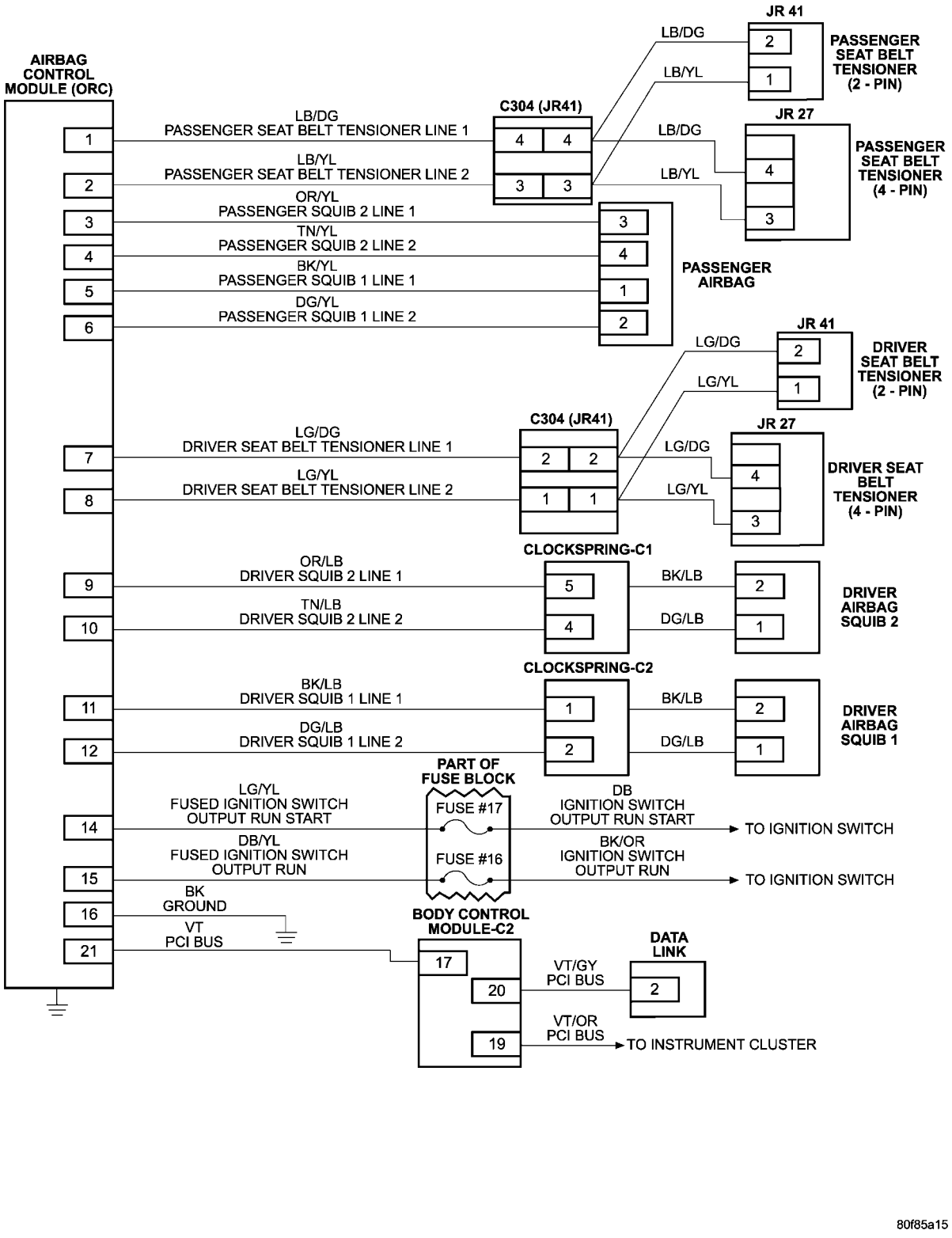
WINDOW DROP RELAY ASSEMBLY (JR27) - 12 WAY

CAV	CIRCUIT	FUNCTION
1	Q19 14OR/YL	MASTER WINDOW SWITCH LEFT FRONT (DOWN)
2	Q290 14YL/OR	MASTER WINDOW SWITCH LEFT REAR DOWN
3	Q38 14OR/LB	MASTER WINDOW SWITCH RIGHT FRONT DOWN
4	Q32 14LB/OR	MASTER WINDOW SWITCH RIGHT REAR DOWN
5	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
6	Q37 20OR/WT	WINDOW DROP RELAY CONTROL
7	Q21 14WT	LEFT FRONT WINDOW DRIVER (DOWN)
8	Q23 14RD/BK	LEFT REAR WINDOW DRIVER DOWN
9	Q26 14VT/WT	WINDOW DROP RELAY RIGHT FRONT (DOWN)
10	Q24 14DG	RIGHT REAR WINDOW DRIVER (DOWN)
11	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)
12	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)

10.0 SCHEMATIC DIAGRAMS

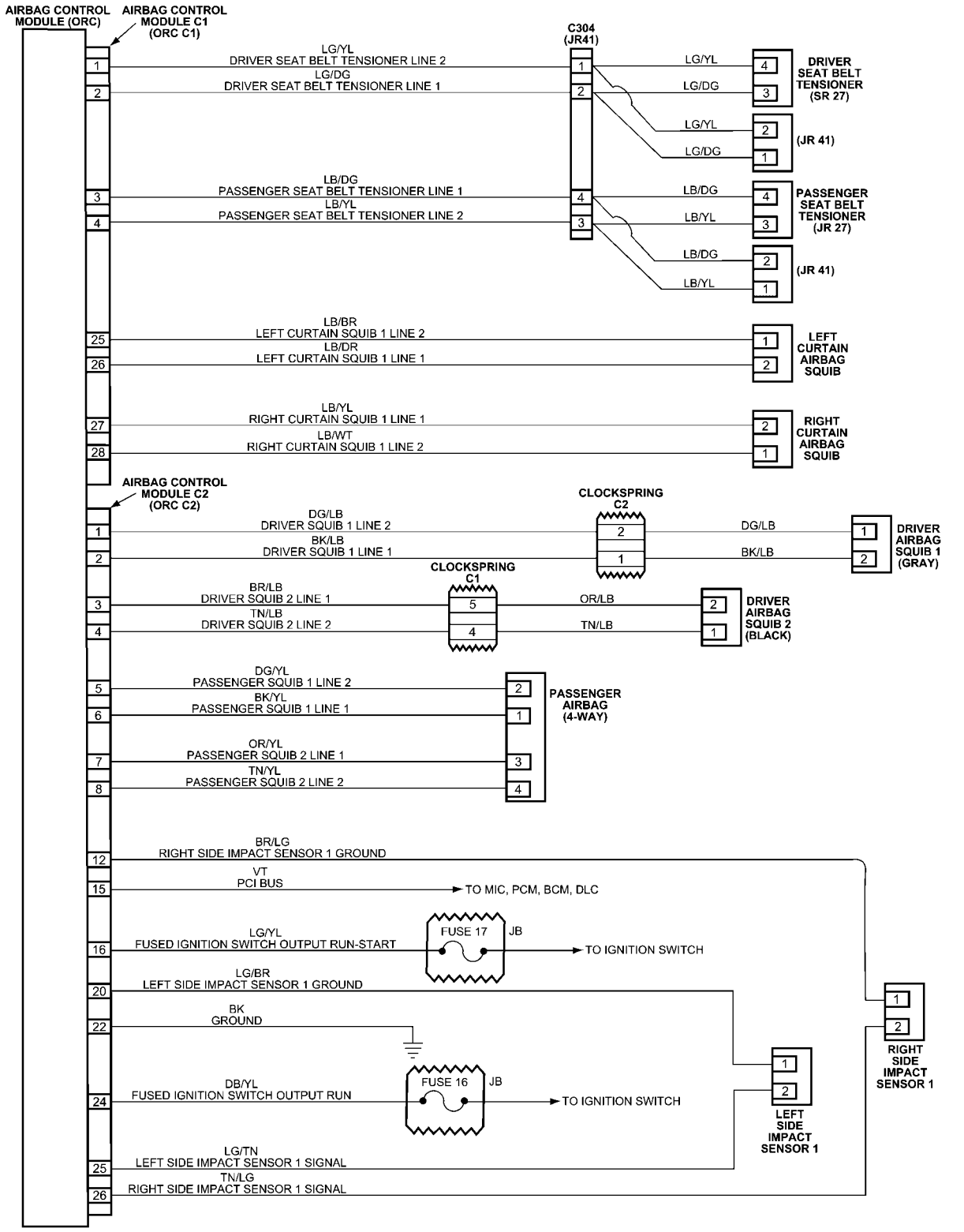
10.1 AIRBAG SYSTEMS

10.1.1 BASE



80f85a15

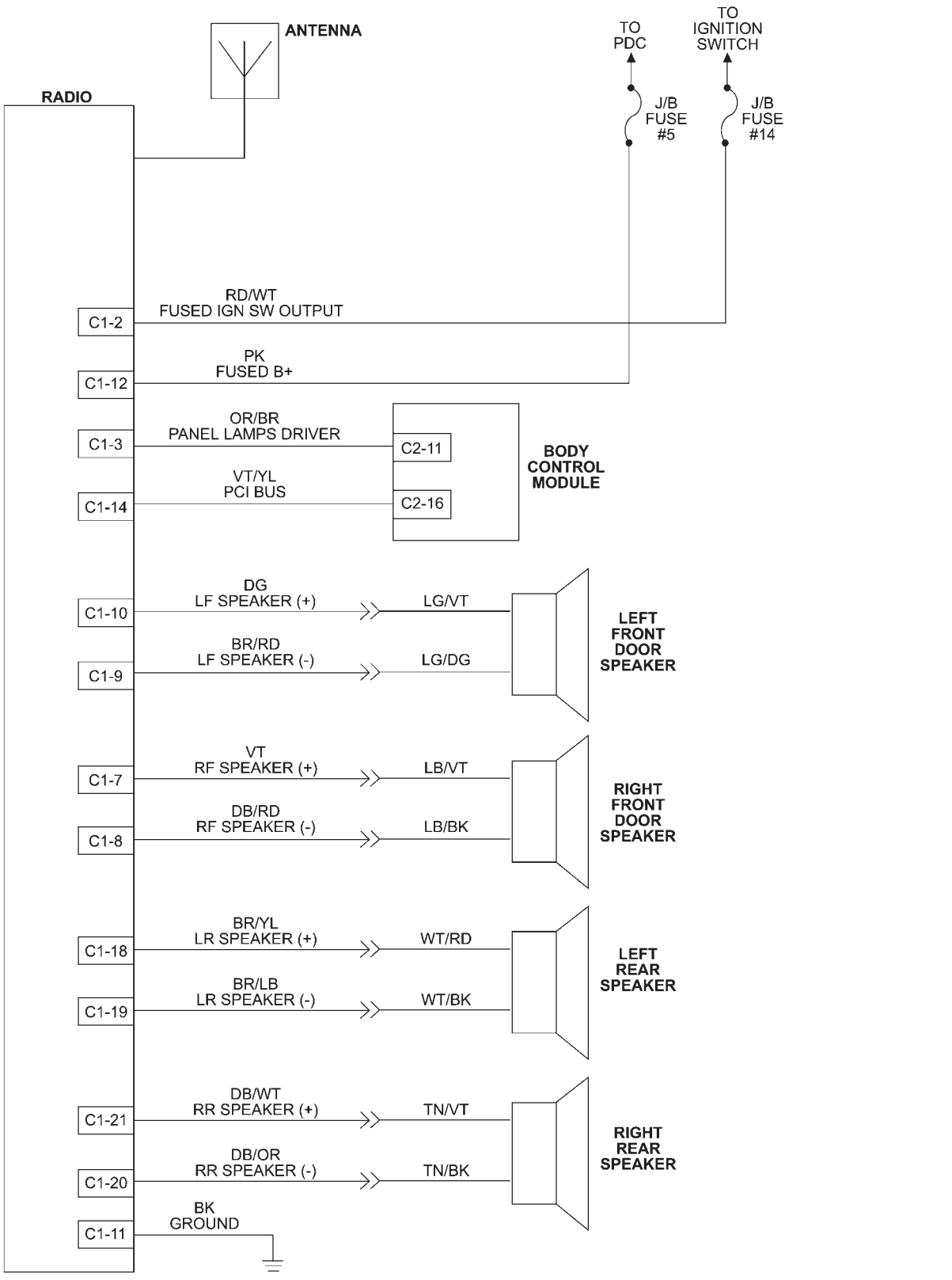
10.1 AIRBAG SYSTEMS (Continued)
10.1.2 PREMIUM



80f85d49

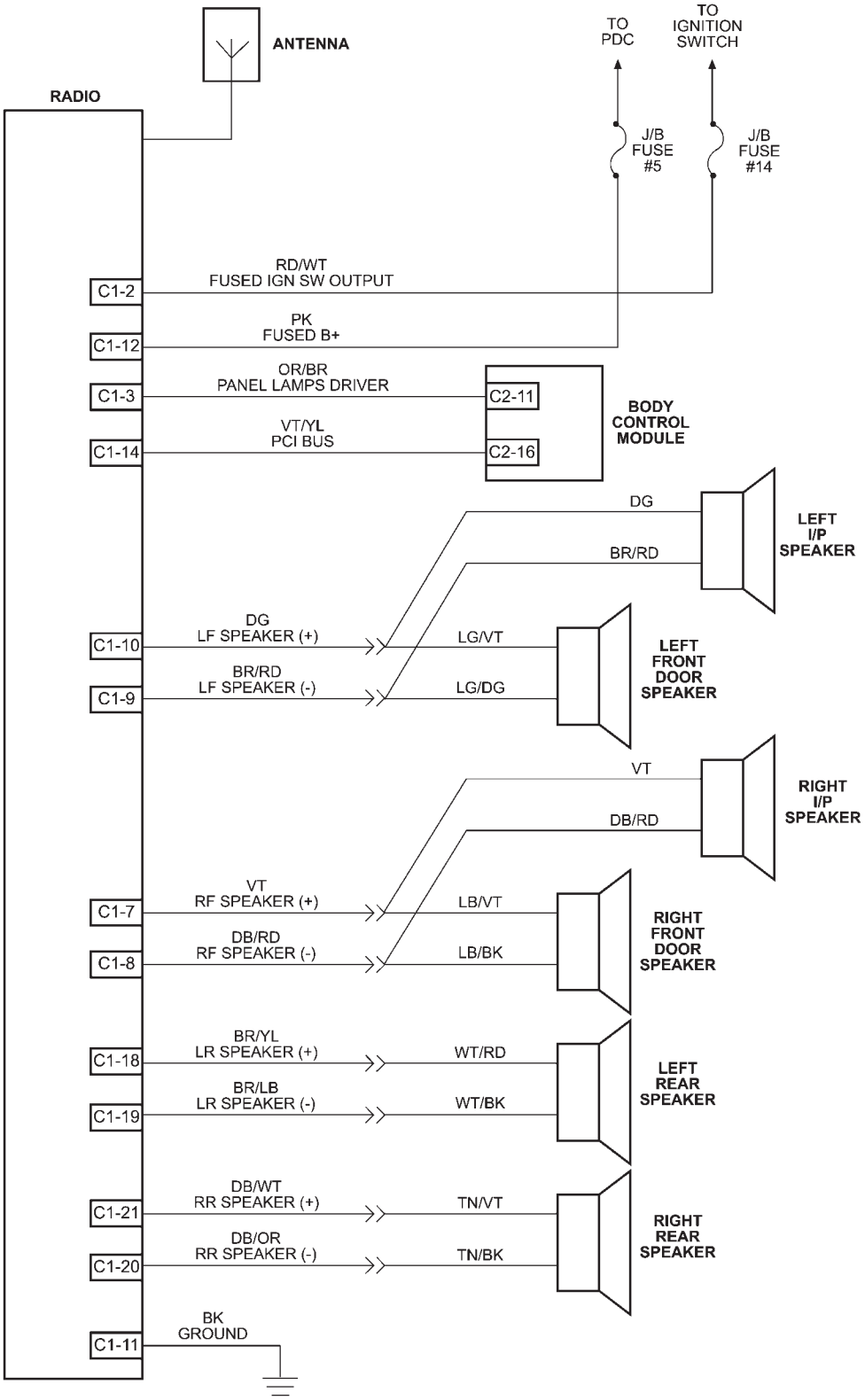
10.2 AUDIO SYSTEM

10.2.1 BASE RADIO–JR41



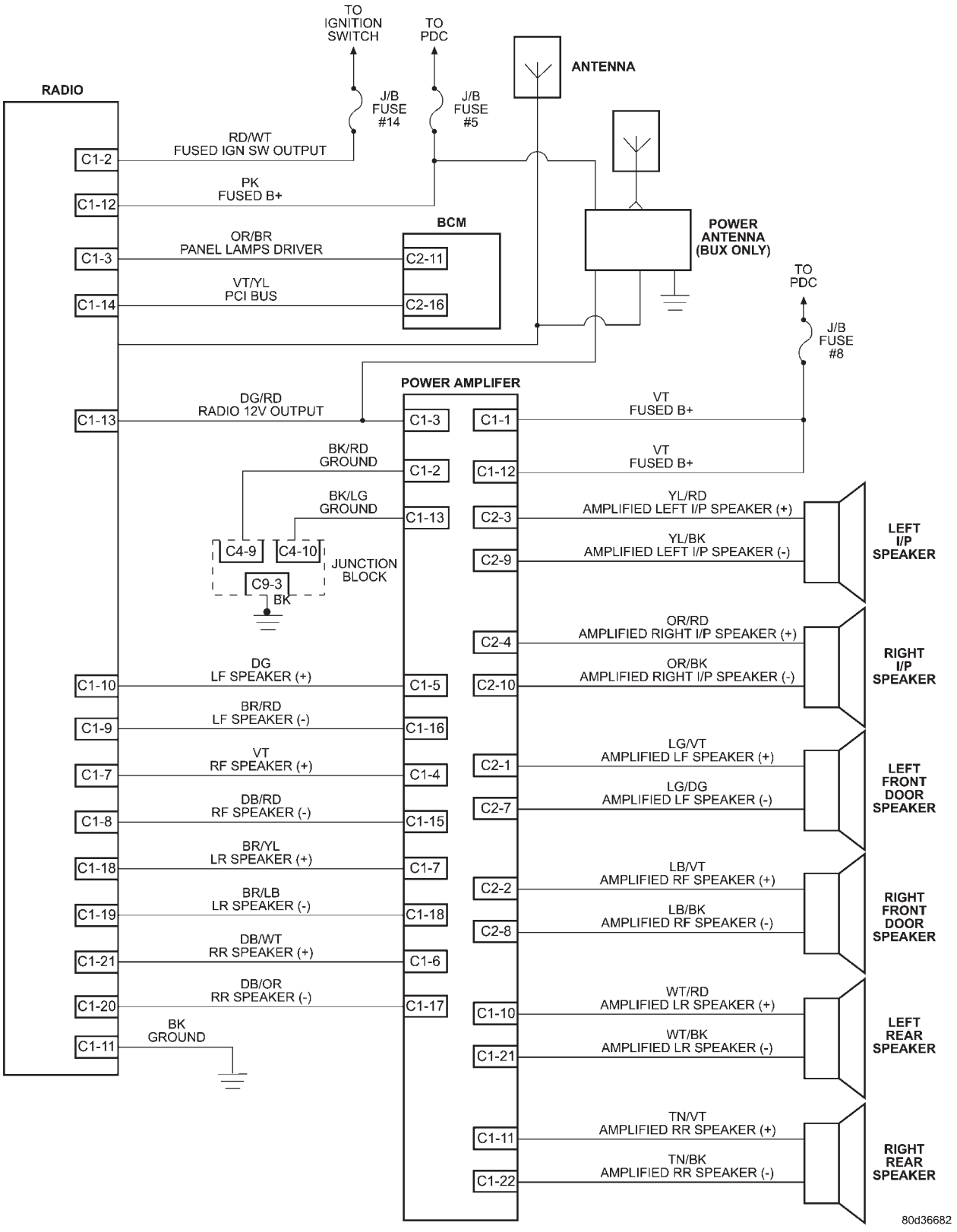
80d36654

10.2 AUDIO SYSTEM (Continued)
10.2.2 BASE RADIO–JR27

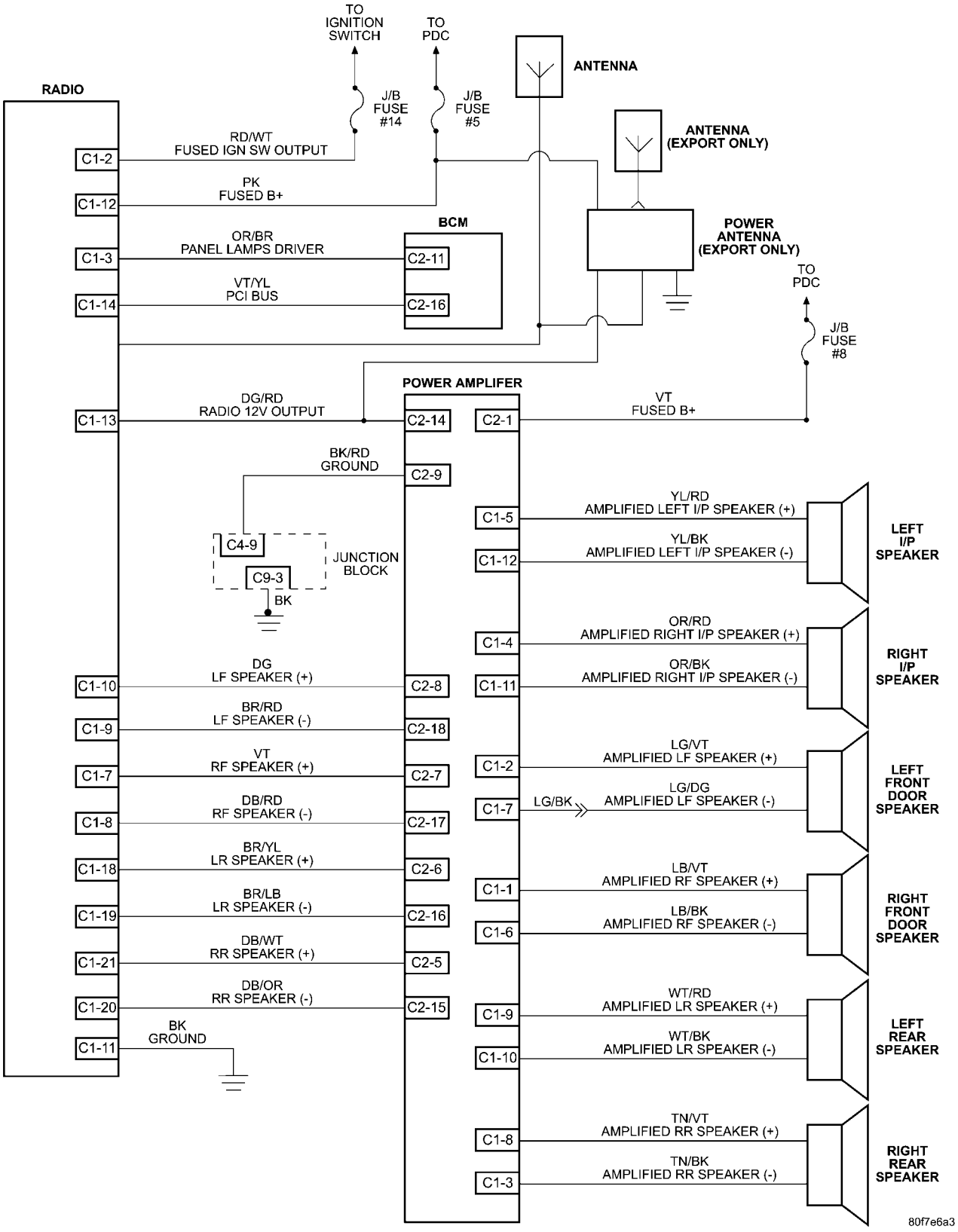


80d366ca

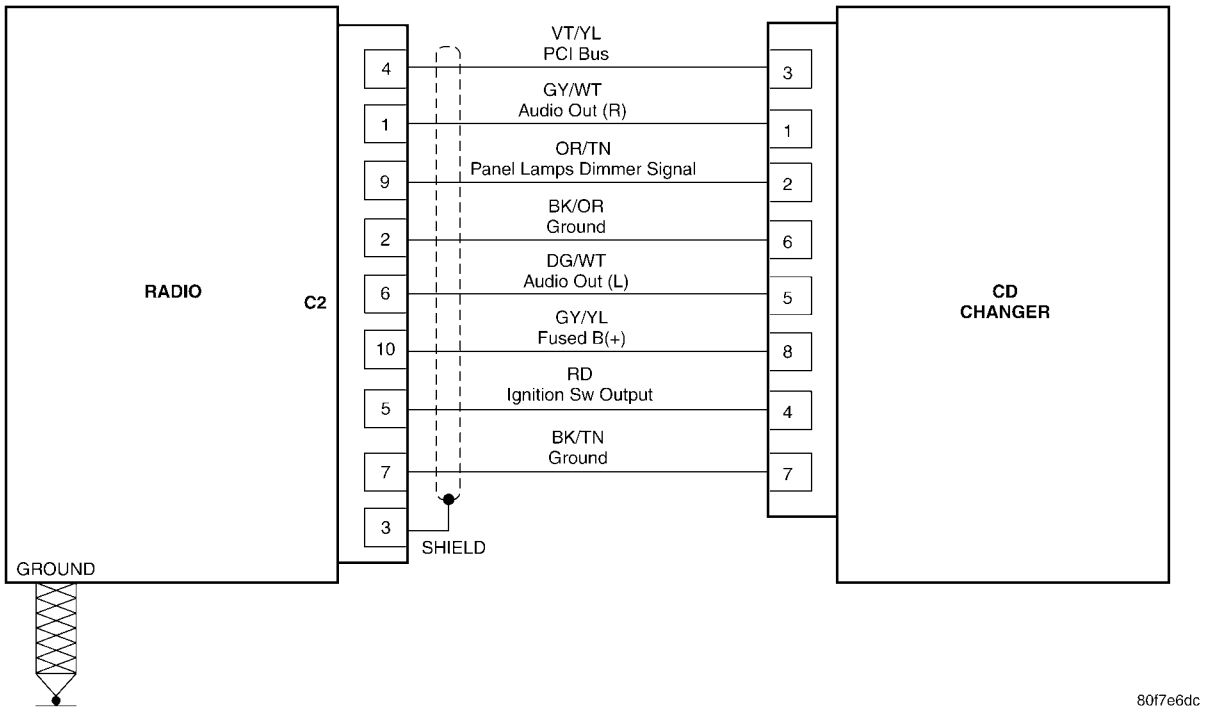
10.2.3 PREMIUM SYSTEM–JR41



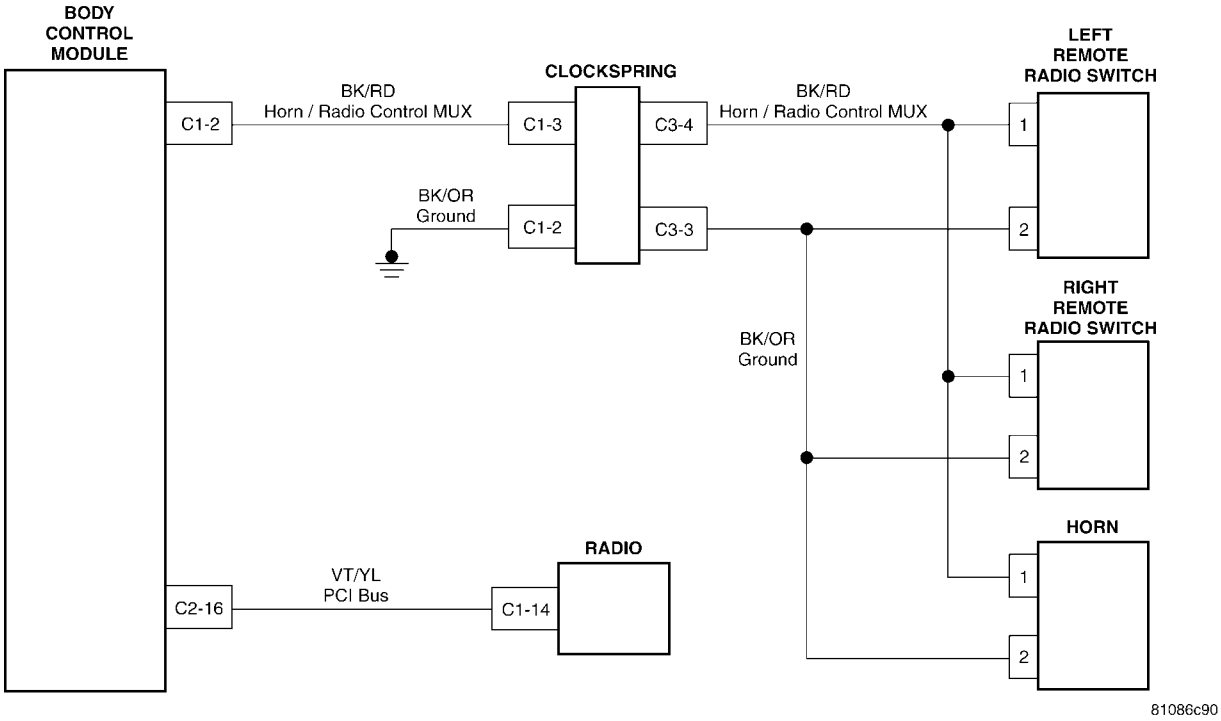
10.2 AUDIO SYSTEM (Continued)
10.2.4 PREMIUM SYSTEM–JR27



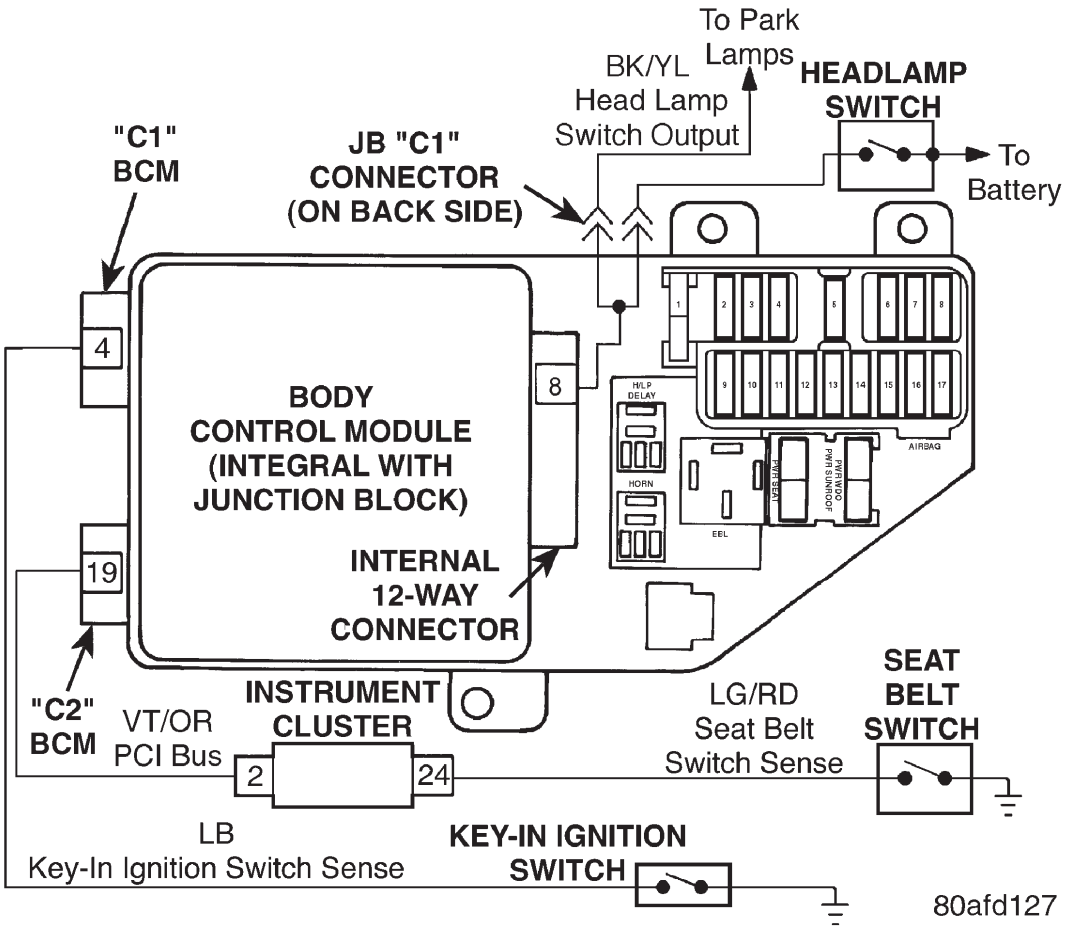
10.2.5 CD CHANGER



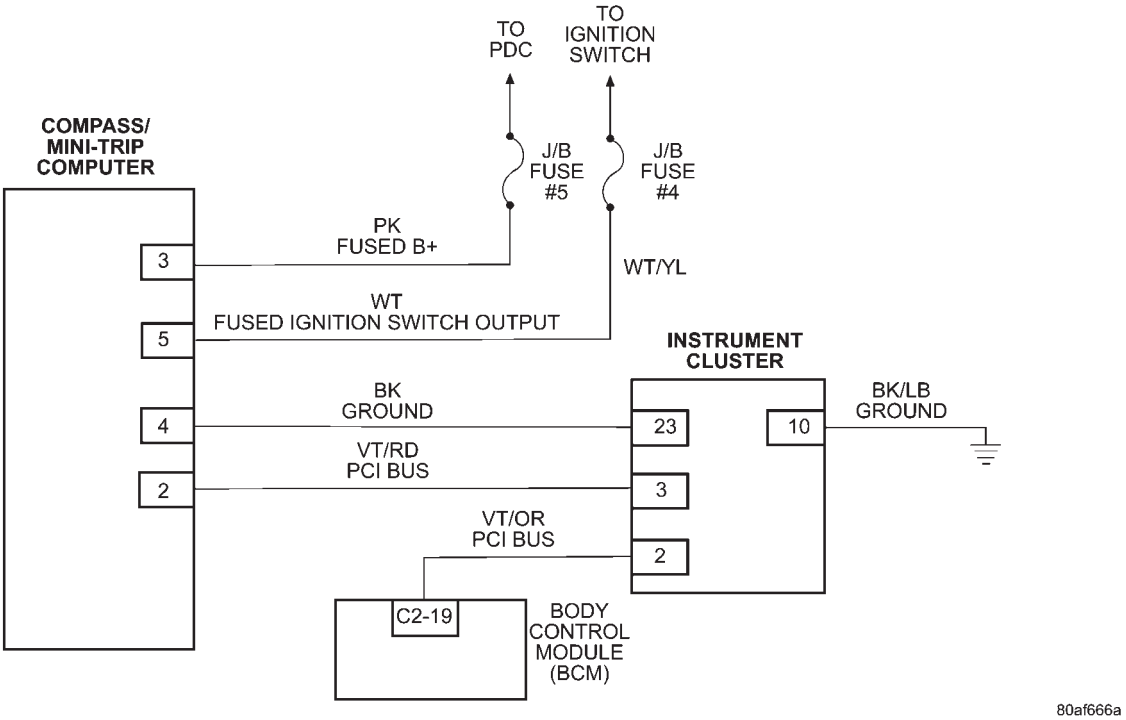
10.2.6 REMOTE RADIO CONTROLS



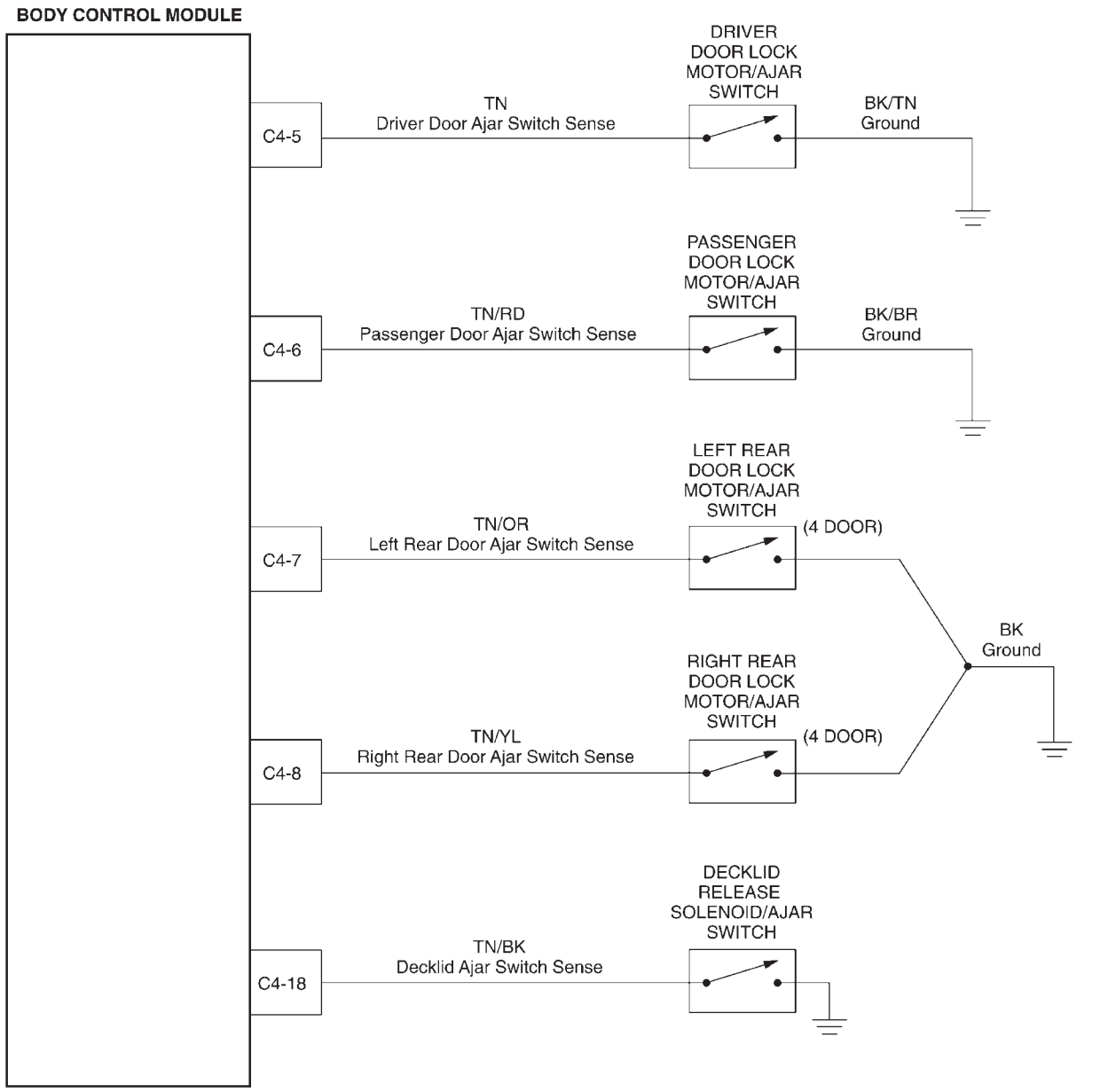
10.3 CHIME SYSTEM



10.4 COMPASS/MINI TRIP COMPUTER (CMTC)



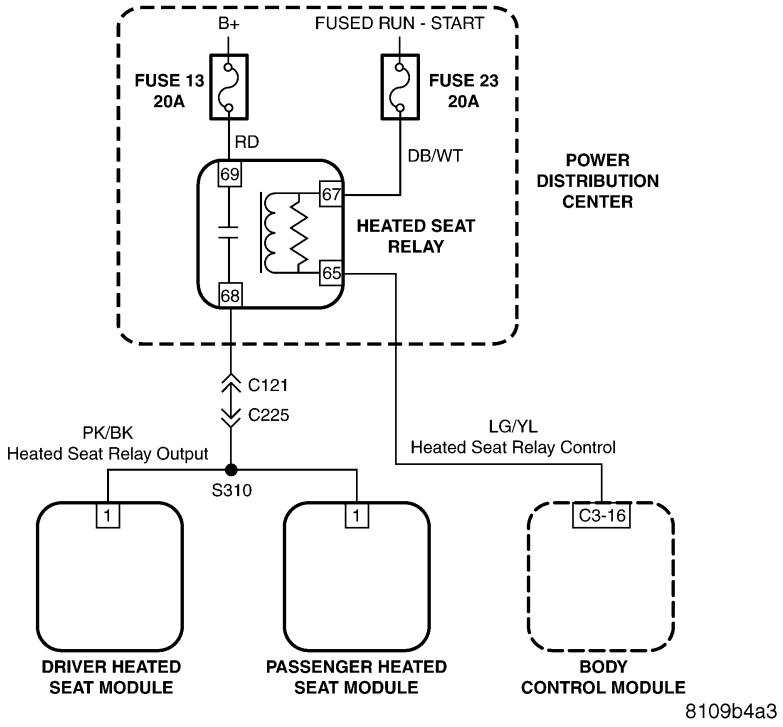
10.5 DOOR AJAR



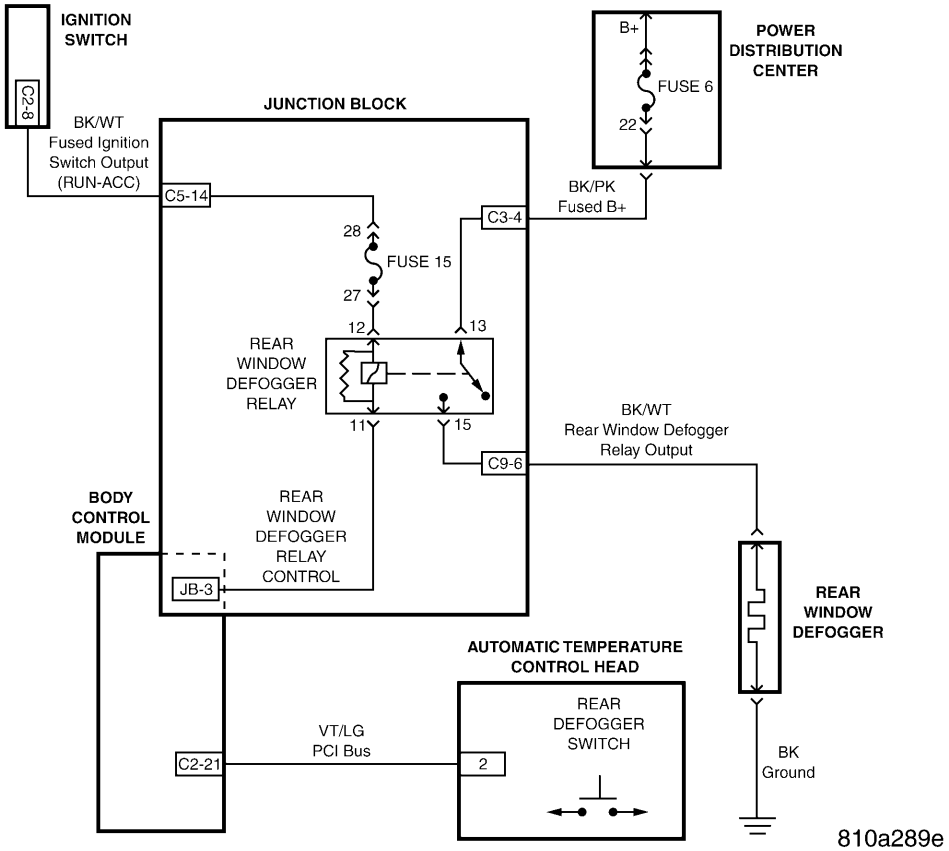
80ad6f4f

10.6 ELECTRICALLY HEATED SYSTEMS

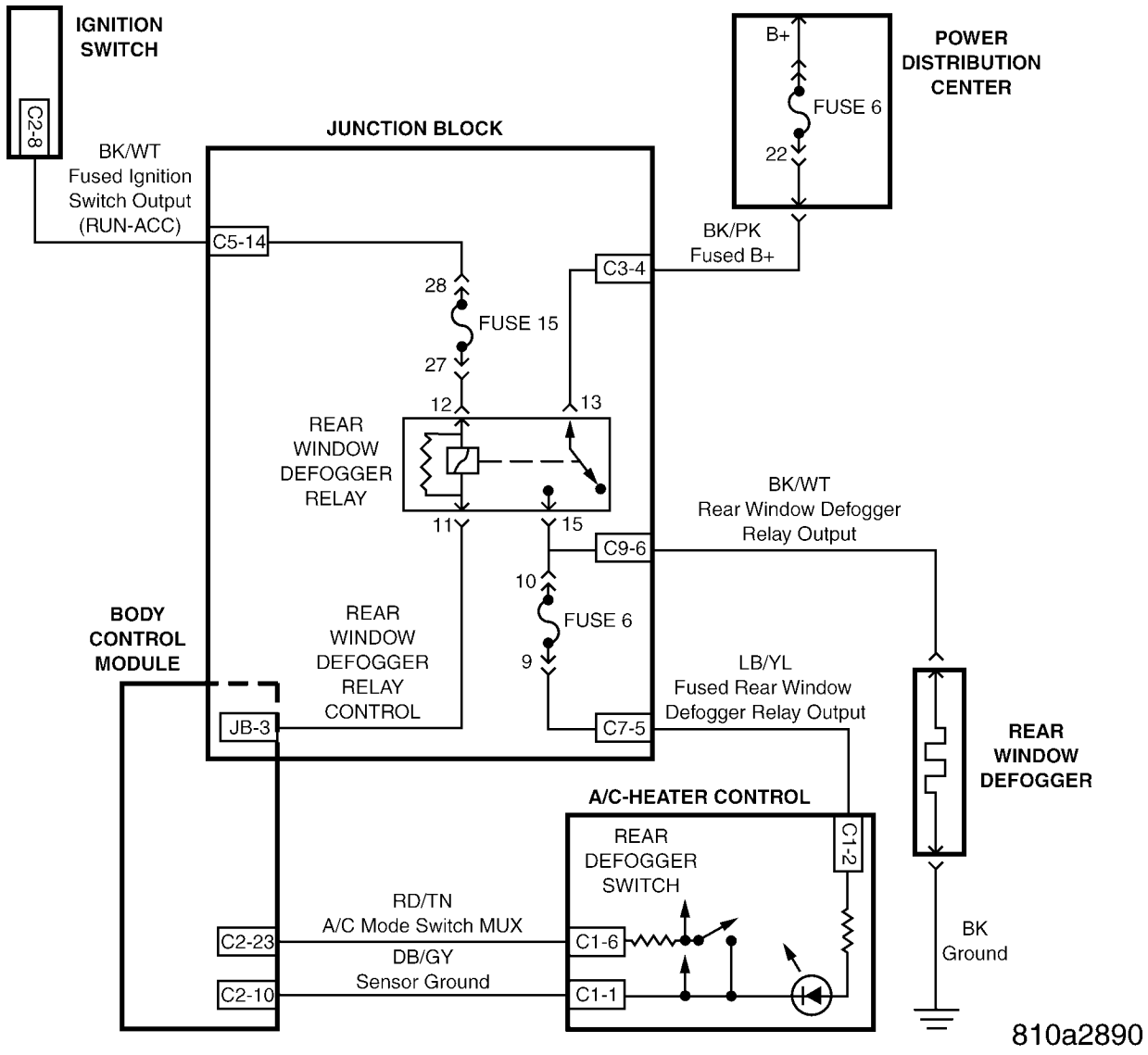
10.6.1 HEATED SEAT RELAY



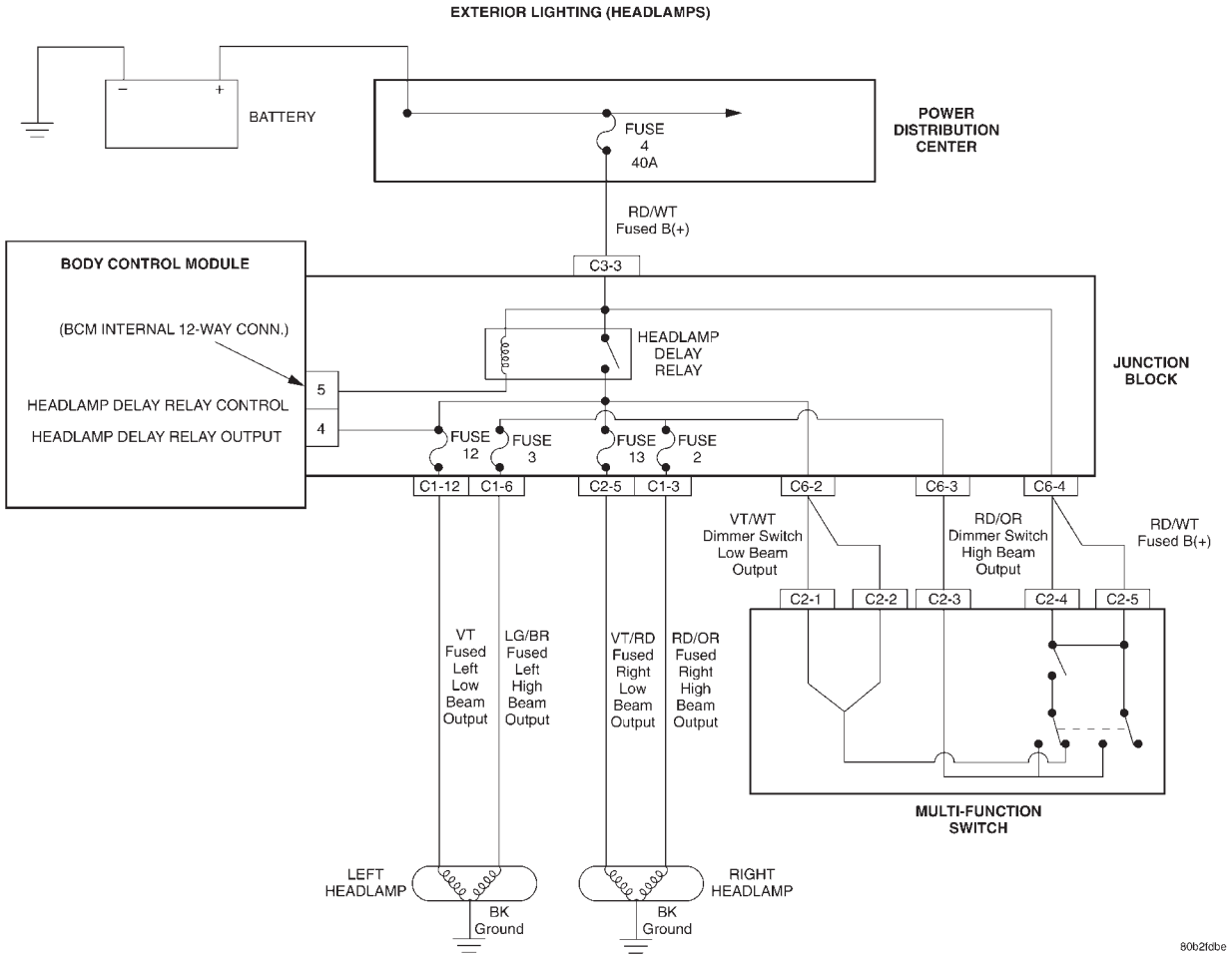
10.6.2 REAR WINDOW DEFOGGER (AUTOMATIC TEMPERATURE CONTROL)



10.6.3 REAR WINDOW DEFOGGER (MANUAL TEMPERATURE CONTROL)

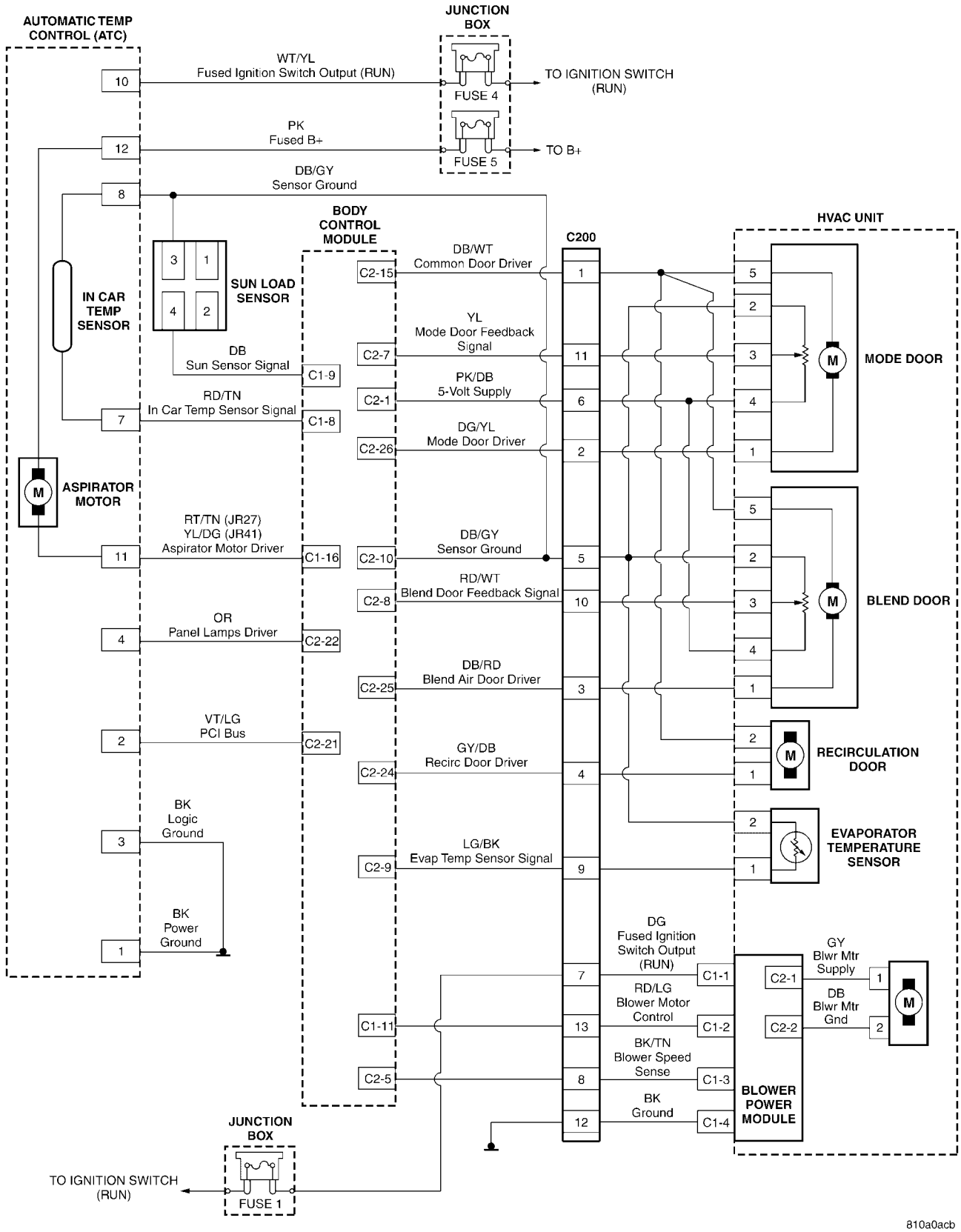


10.7 EXTERIOR LIGHTING (HEADLAMPS)

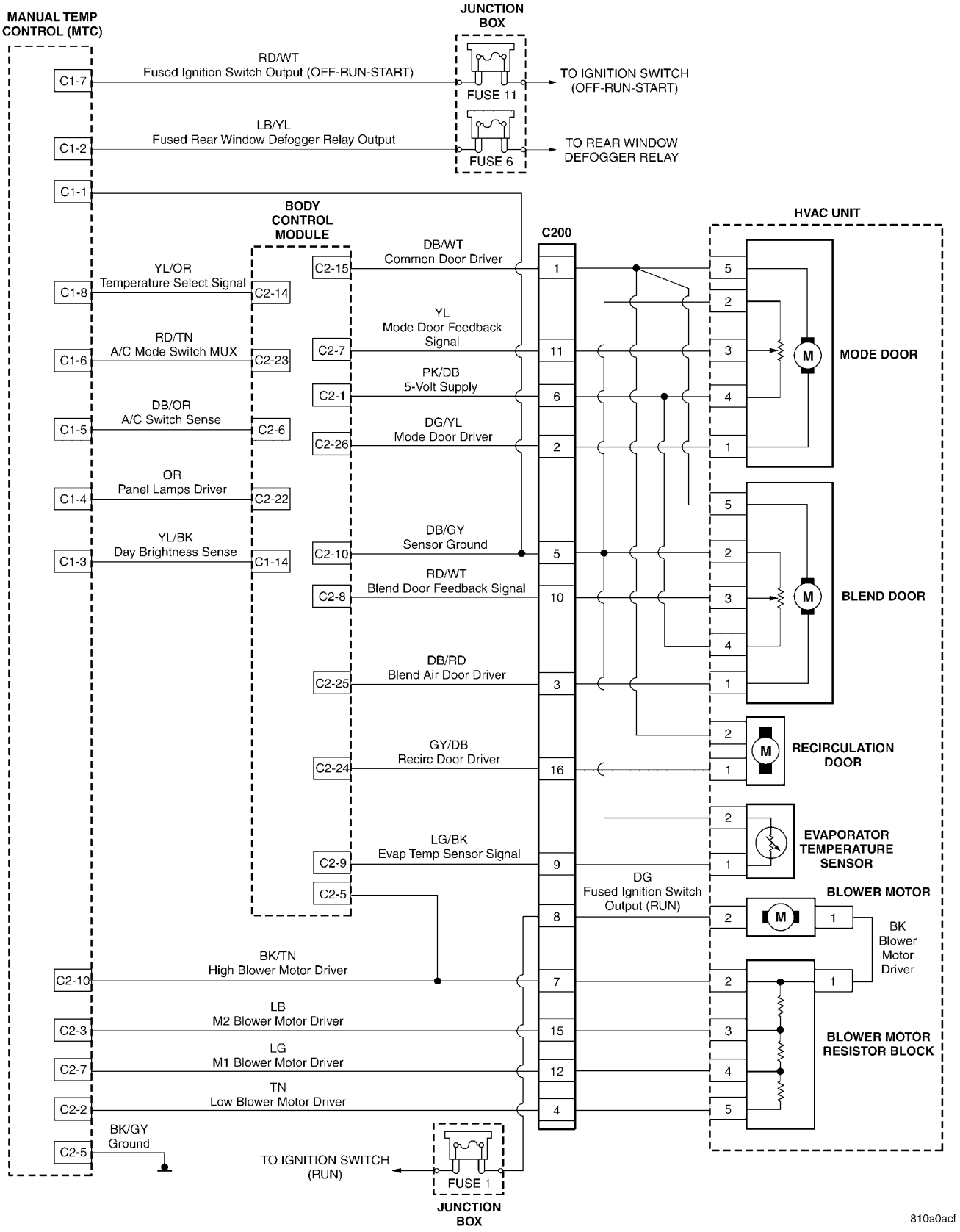


10.8 HEATING AND A/C

10.8.1 AUTOMATIC TEMPERATURE CONTROL (ATC)

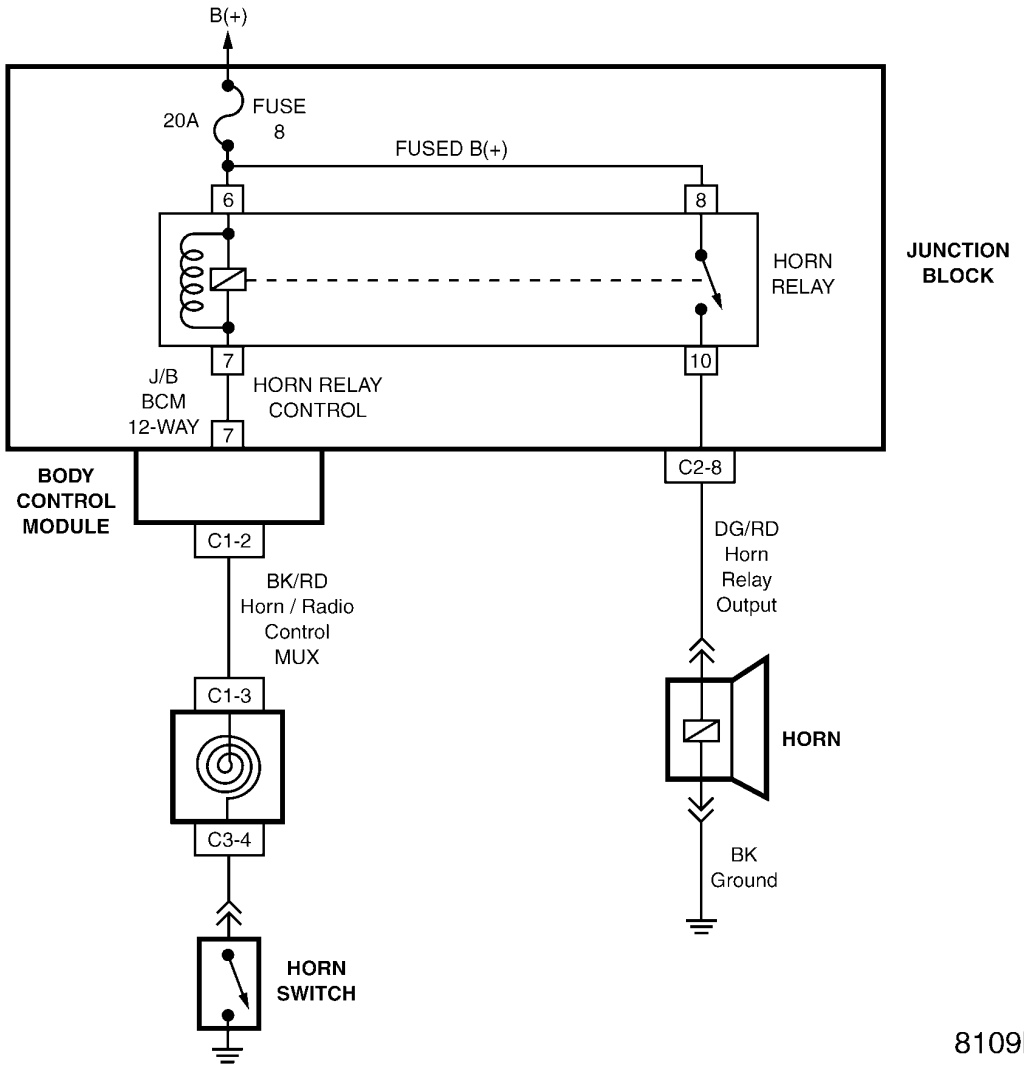


10.8 HEATING AND A/C (Continued)
10.8.2 MANUAL TEMPERATURE CONTROL (MTC)



10.9 IGNITION, POWER, ACCESSORY

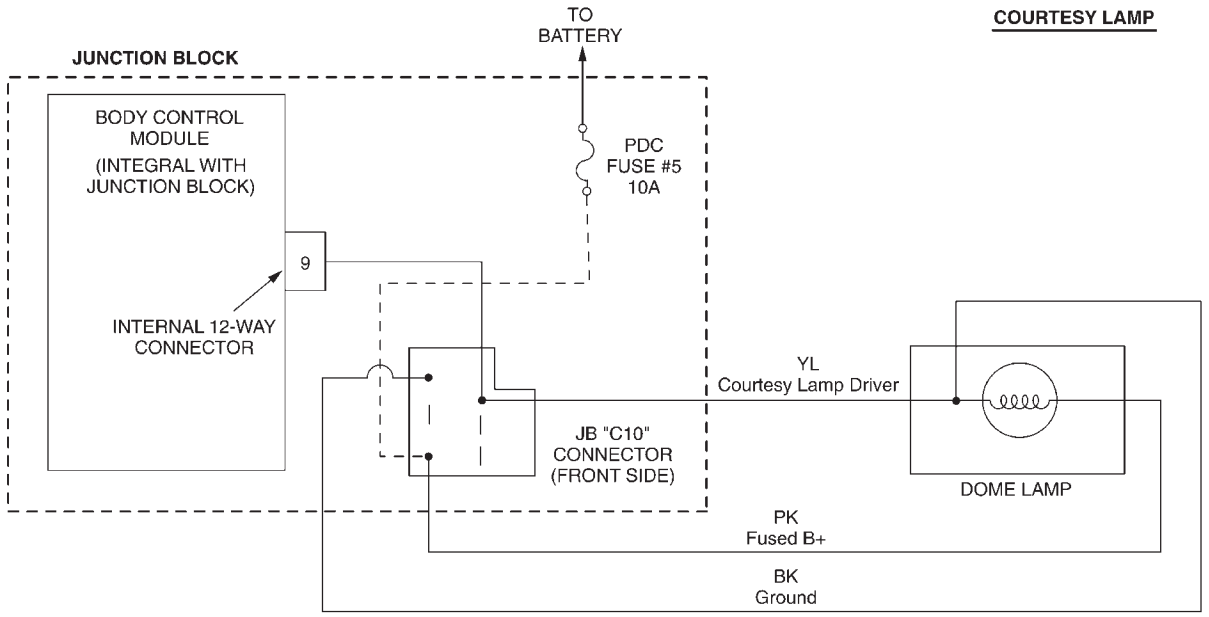
HORN SYSTEM



8109b4b5

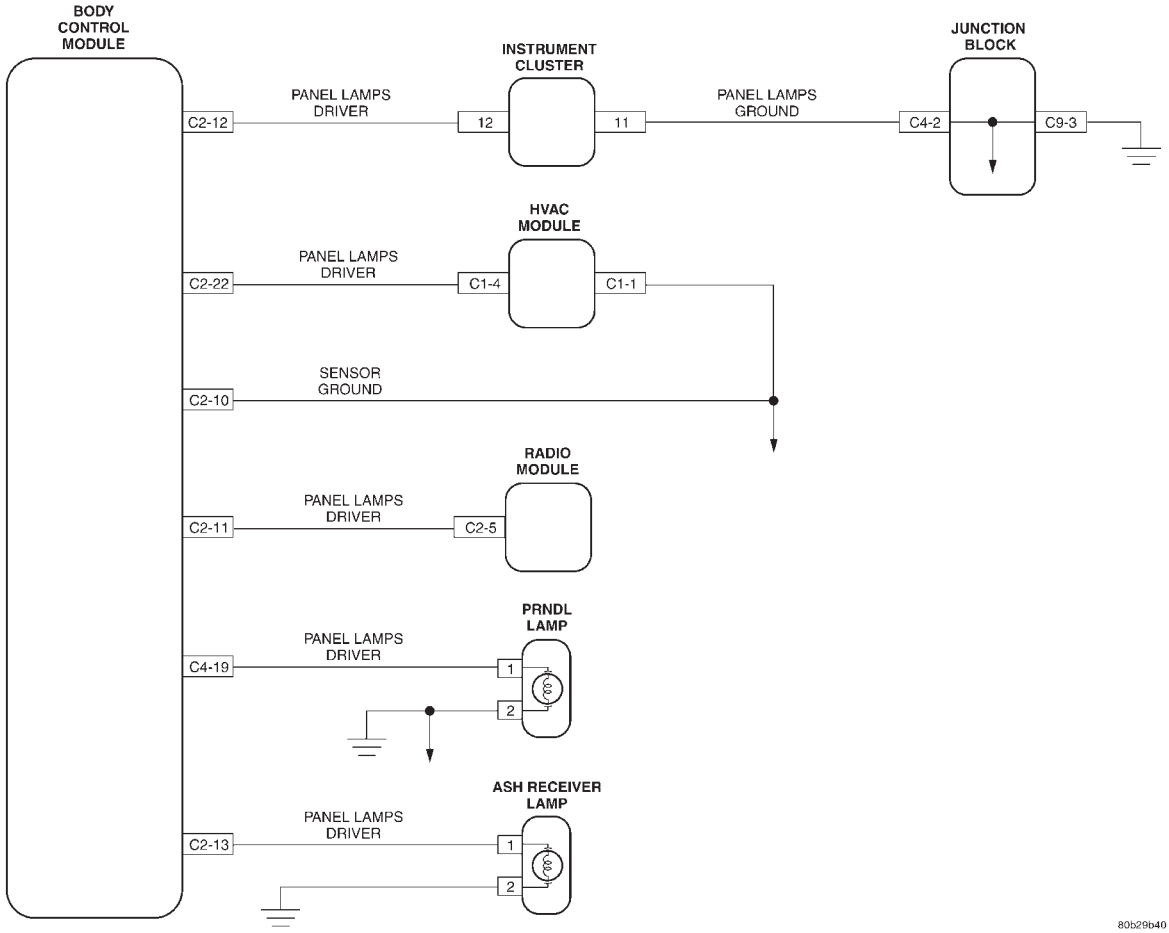
10.10 INTERIOR LIGHTING

10.10.1 COURTESY LAMPS



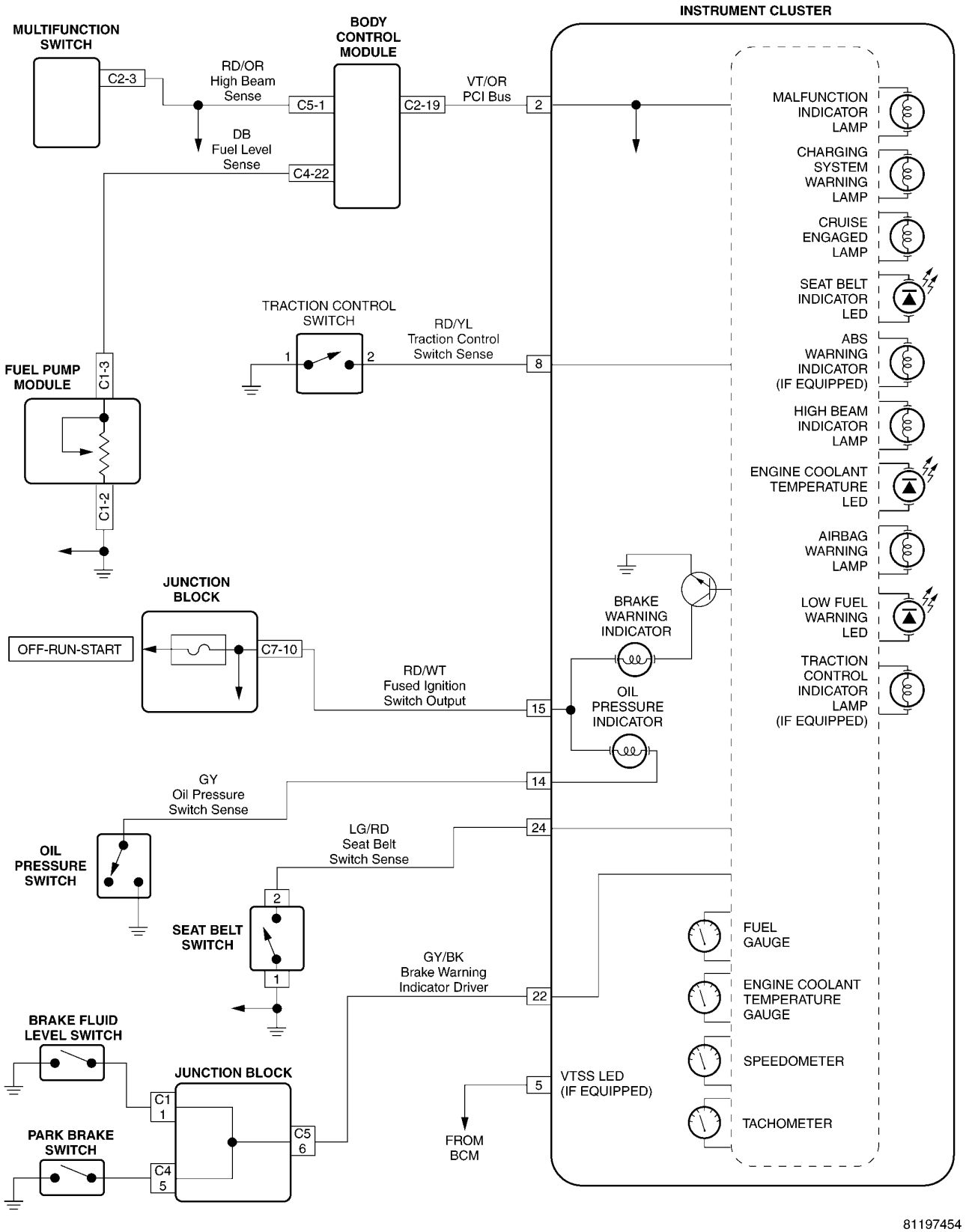
80b19761

10.10.2 PANEL LAMPS

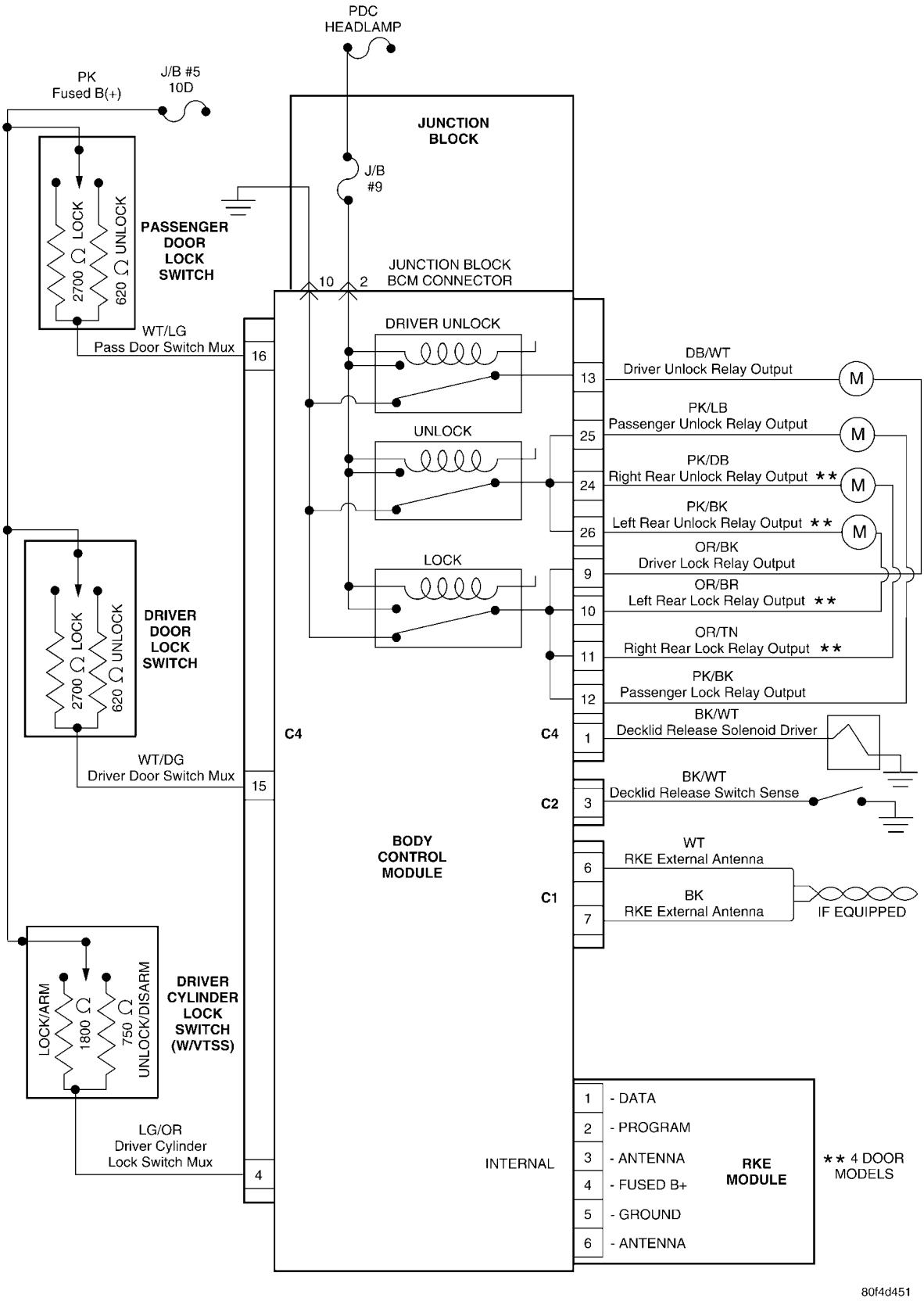


80b29b40

10.11 MECHANICAL INSTRUMENT CLUSTER

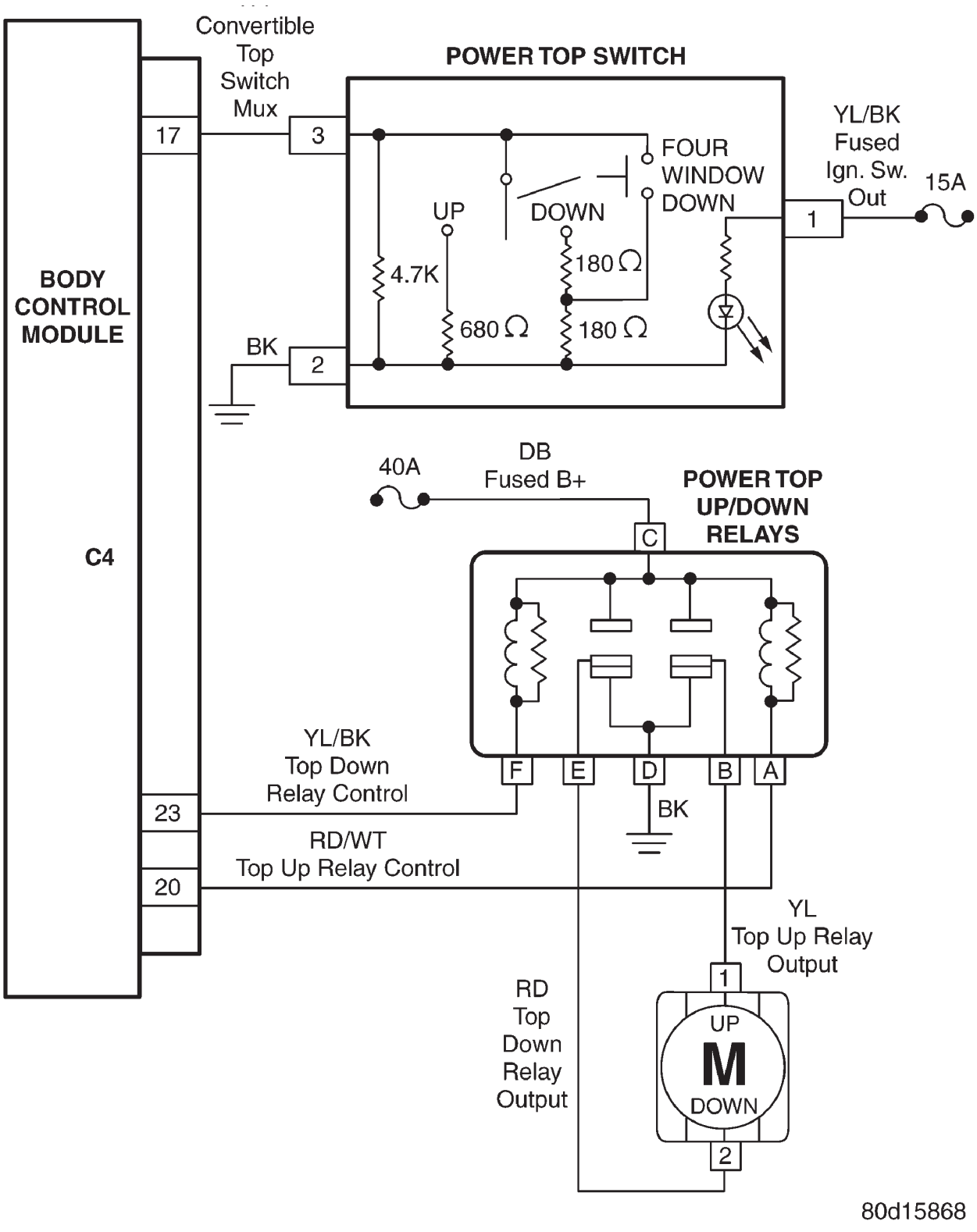


10.12 POWER DOOR LOCKS/RKE

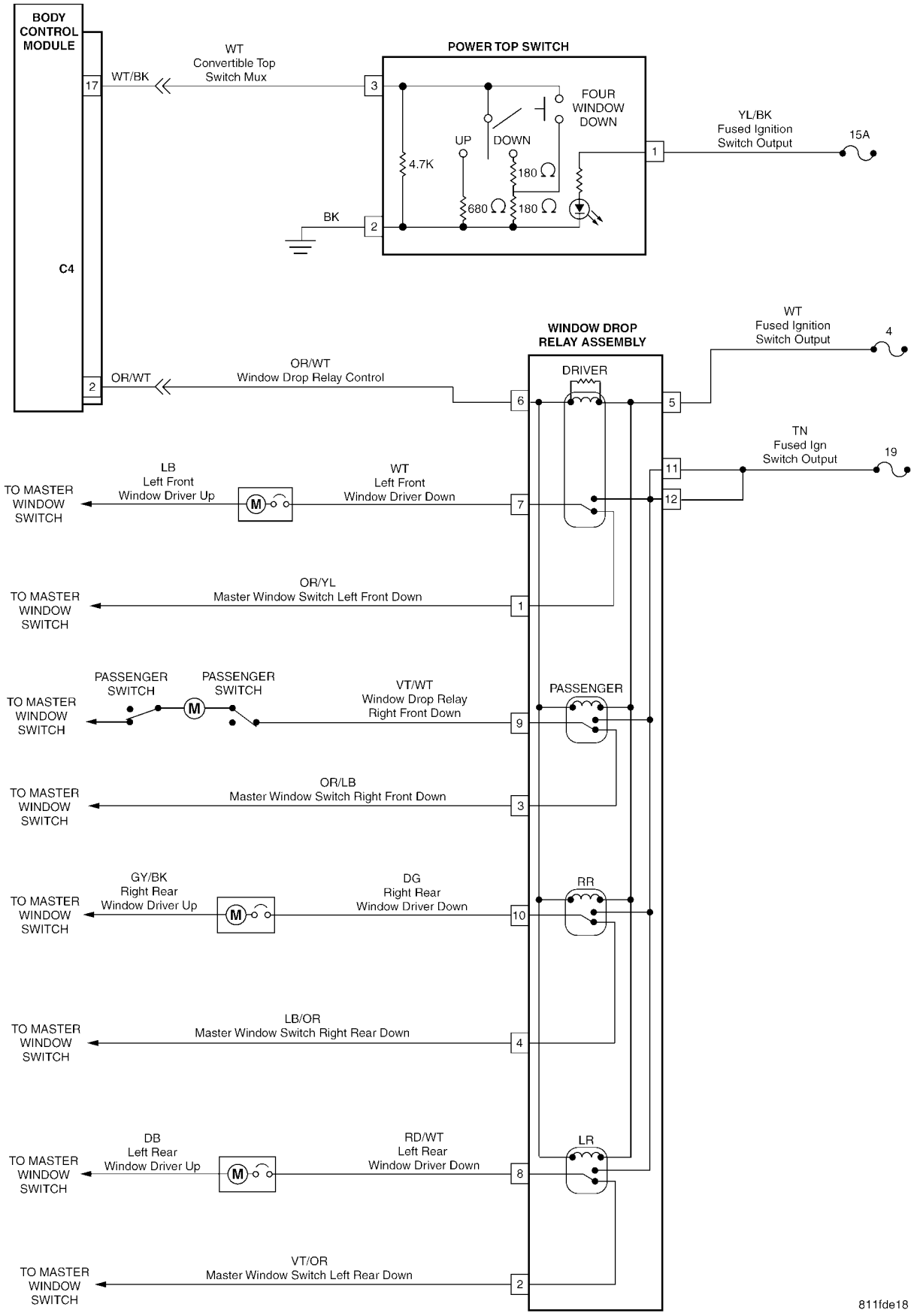


10.13 POWER TOP

10.13.1 CONVERTIBLE TOP

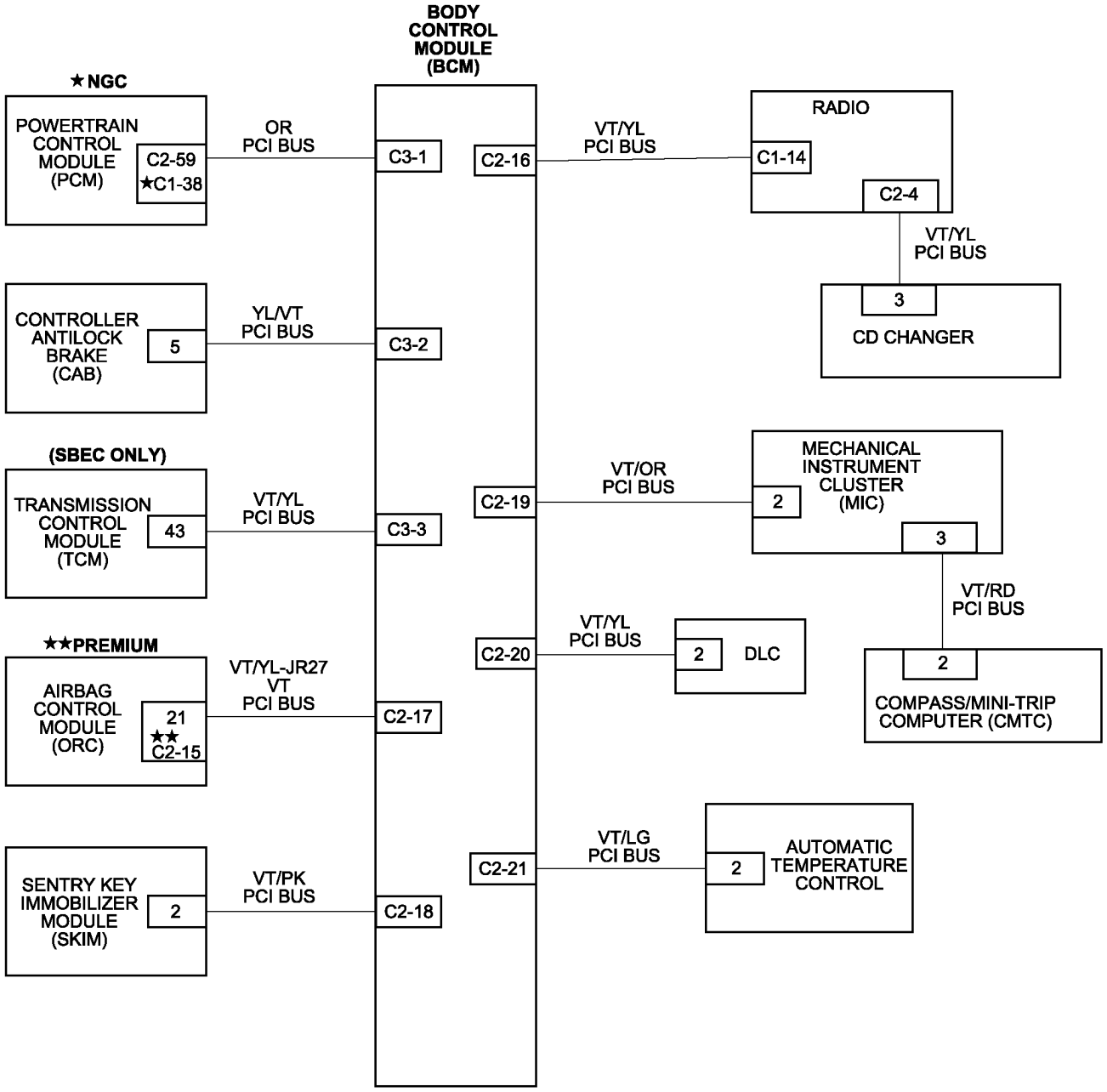


10.13 POWER TOP (Continued)
10.13.2 POWER TOP/4 WINDOW DROP

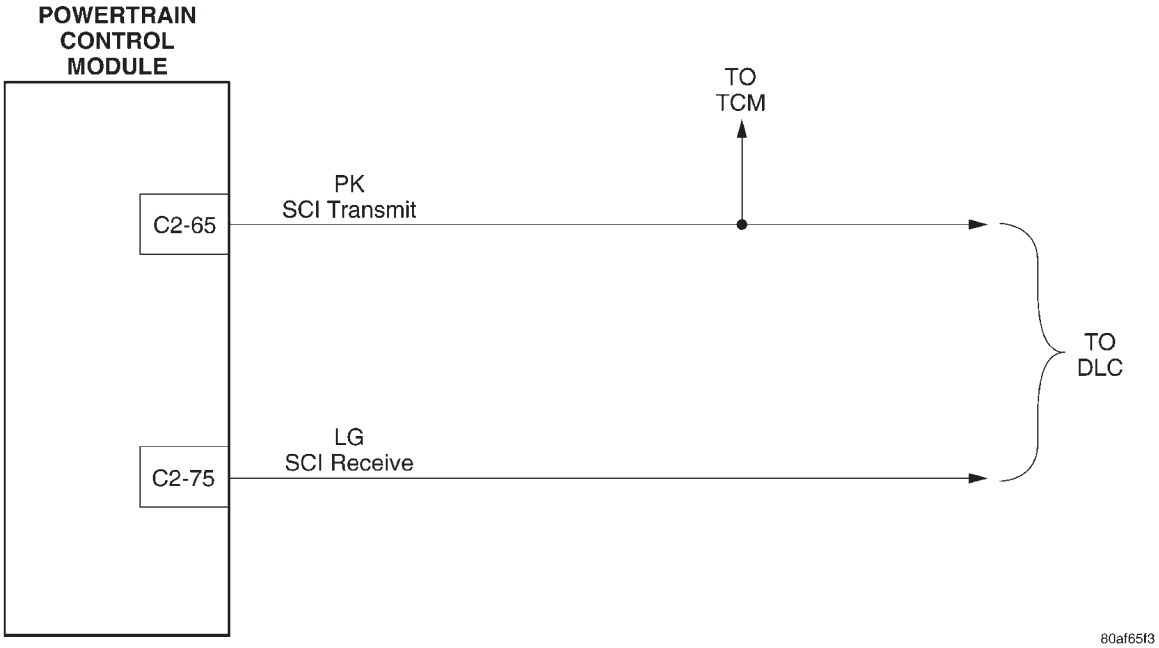


10.14 VEHICLE COMMUNICATION

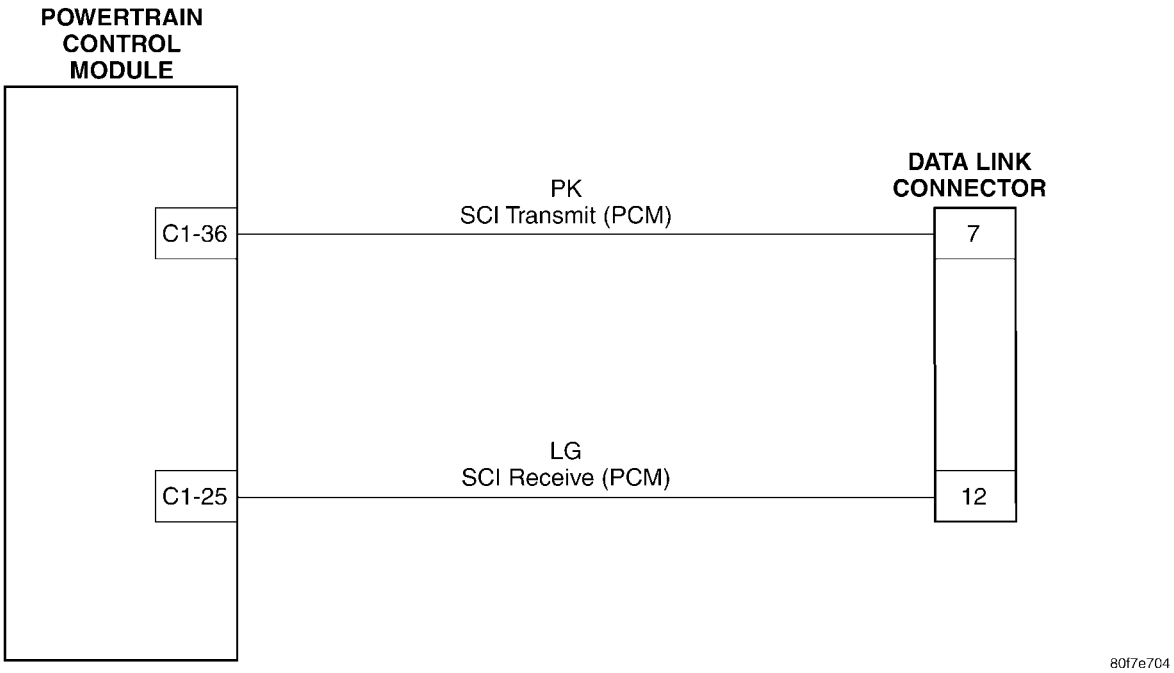
10.14.1 PCI BUS COMMUNICATION



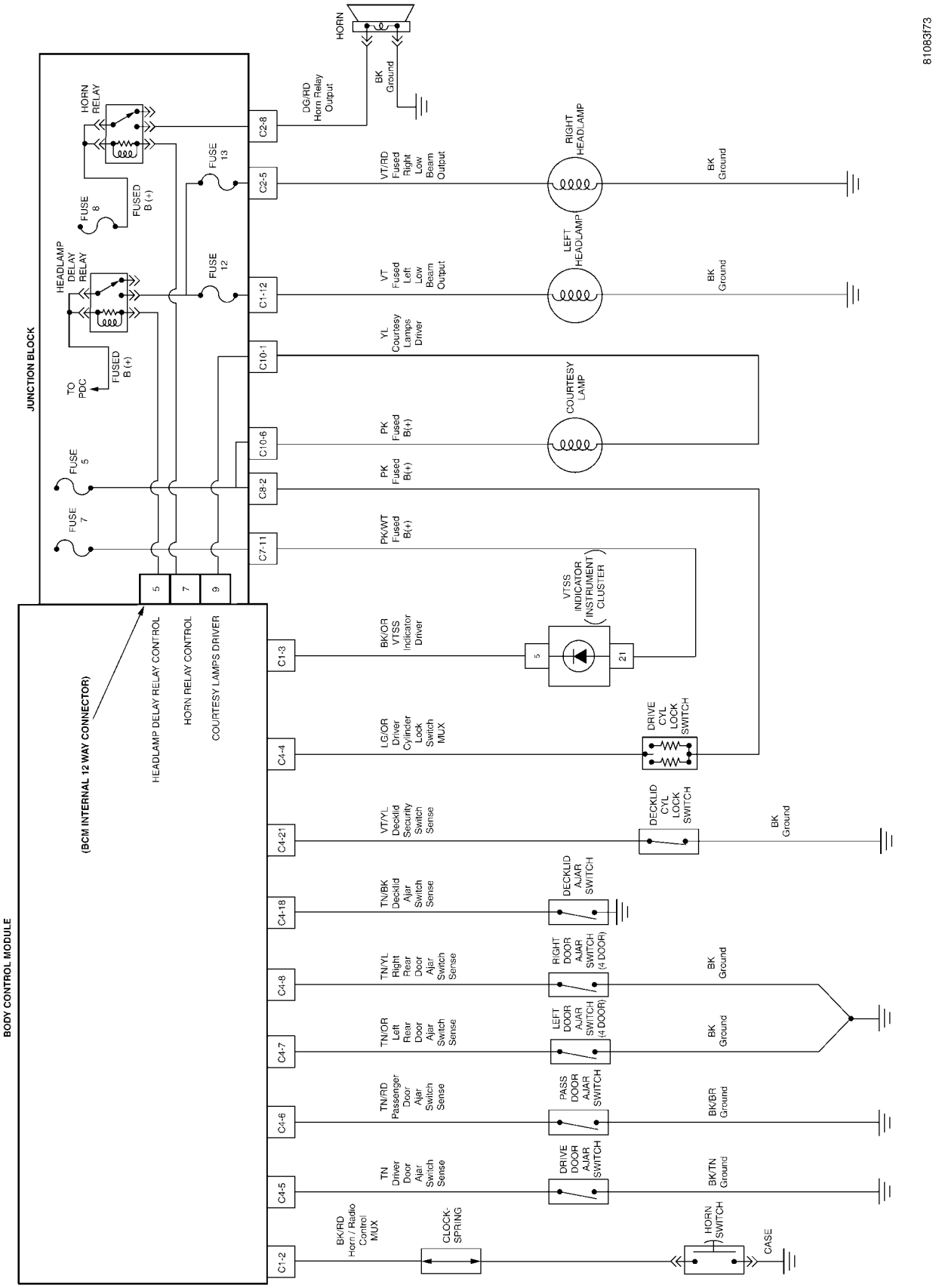
10.14 VEHICLE COMMUNICATION (Continued)
10.14.2 PCM COMMUNICATION



10.14.3 PCM COMMUNICATION - NGC

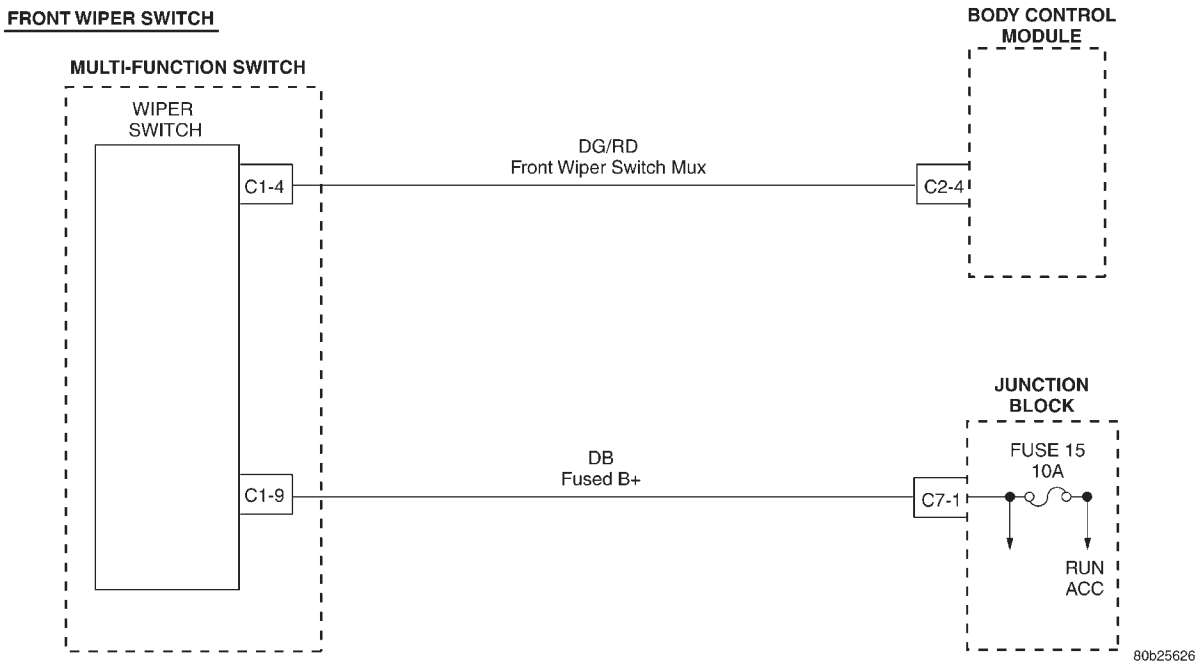


10.15 VEHICLE THEFT SECURITY SYSTEM



10.16 WIPER SYSTEM

10.16.1 WIPER SWITCH



10.16.2 FRONT WIPERS

